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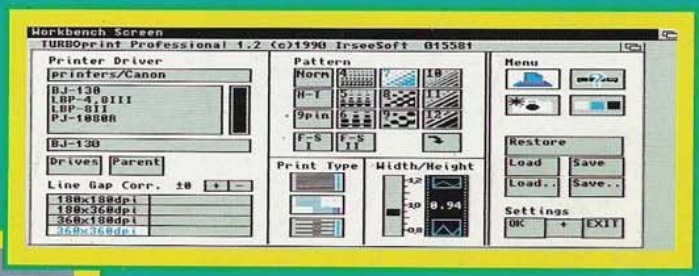

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Editorial

Once upon a time there were only two ways of turning your creations into hard copy using a home computer - dot matrix or daisy wheel. The choice was simple. Dot matrix was fast, cheap and some what nasty. Daisy Wheel suited those jobs requiring a more polished look.

Today there are so many options, making the right choice can be very confusing; Bubble Jet, Ink Jet, Laser, Dot Matrix or Thermal. The Amiga connects to virtually all of these possible output options, with drivers to match; and thanks to preferences, gone are the days when you have to configure every single program you use with your printer.

Citizen are about to ship a new driver for their already impressive GSX-140. According to one company representative, the output is truly impressive.

If you can't afford to buy your own wizz-bang printer, you can always use an output bureau. Any Mac or IBM bureau will do - just use Dos to DOS or Mac-2-Dos to move your files around (or the public domain program MSH:).

One crowd which are well worth checking out if you're looking for quality colour output is Classic Colour Copying, in west Melbourne. These guys are pumping out some absolutely stunning work from a range of computer platforms, inlcuding the Amiga. All the machines are networked together providing an optimum situation for data exchange. Output of both IFF and Postscript files is possible to either a Canon Colour Laser Copier 550 (up to A3) or Canon Colour BubbleJet Copier (up to A1).

I viewed examples created with *Art Department Professional* which compared well with anything other machines were managing to do. Professional Draw was also able to produce quality output. The results are suitable for professional work and short run colour prints.

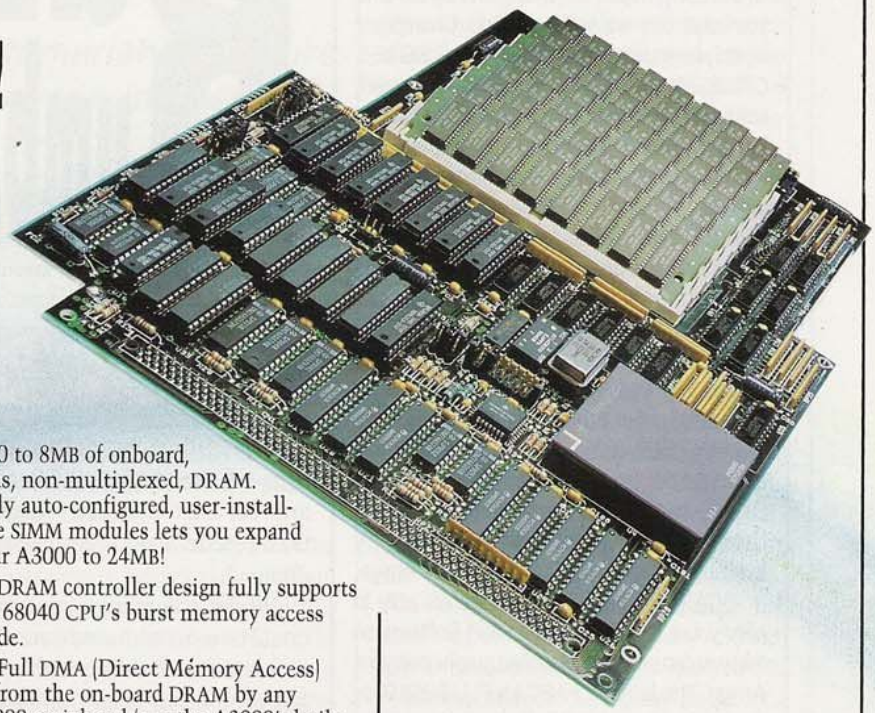
Output costs for A4 start at around $30, with discounts for quanitites. If you're interested give them a call on (03) 326 6810. *Professional Page 3.0* and *Professional Draw 3.0* are both due real soon. Both new versions promise to sort out a range of complaints, as well as adding a large number of new features. On top of our wish list is improved colour separation. One program Gold Disk have managed to deliver is *Professional Calc,* and first impressions are that this is a super enhanced rework of *Advantage.*

It's encouraging to see so many quality programs arriving this year - many of which are big improvements on old favourites. Now all we need are some new machines to go along with our new fangled Workbench 2.04!

Andrew Farrell

THINK ALL '040 ACCELERATORS ARE THE SAME?

THINK AGAIN!



As a high power Amiga® 3000/3000T user you need a 68040 accelerator board for one reason ... and one reason only ... SPEED!

And once you know what makes one 68040 accelerator better than another, the only board you'll want is the **G-FORCE 040** from GVP.

WATCH OUT FOR SLOW DRAM BOTTLENECKS

Yes, all 68040 CPU's are created equal *but* this doesn't mean that all accelerator boards allow *your* A3000 to make the most of the 68040 CPU's incredible performance.

The A3000 was designed to work with low-cost, 80ns DRAM (memory) technology. As a result, anytime the '040 CPU accesses the A3000 motherboard, memory lots of CPU *wait-states* are introduced and all the reasons you bought your accelerator literally come to a screeching halt!

Not true for the **G-FORCE 040**...

SOLUTION: THE G-FORCE 040's FAST, 40ns, ON BOARD DRAM

To eliminate this memory access bottleneck, we designed a special 1MB, 32-bit wide, non-multiplexed, SIMM module using 40ns DRAMs (yes, *forty nanoseconds!*). This revolutionary memory module allows the **G–FORCE 040** to be populated with up to 8MB of state-of-the-art, high performance, on-board DRAM. Think of this as a giant 8MB cache which lets the '040 CPU race along at the top performance speeds you paid for.

SHOP SMART: COMPARE THESE G-FORCE 040 SPECS TO ANY OTHER '040 ACCELERATOR

▶ 68040 CPU running at 28Mhz providing 22 MIPS and 3.75 MFLOPS!
NOTE: The 68040 incorporates a CPU, MMU, FPU and separate 4KB data and instruction caches on a single chip.

▶ 0 to 8MB of onboard, 40ns, non-multiplexed, DRAM. Fully auto-configured, user-installable SIMM modules lets you expand your A3000 to 24MB!

▶ DRAM controller design fully supports the 68040 CPU's burst memory access mode.

▶ Full DMA (Direct Mémory Access) to/from the on-board DRAM by any A3000 peripheral (e.g: the A3000's built-in hard disk controller).

▶ Asynchronous design allows the 68040 to run at clock speeds independent of the A3000 motherboard speed. Allows easy upgrade to 33Mhz 68040 (over 25.3 MIPS!) when available from Motorola.

▶ Hardware support for allowing V2.0 Kickstart ROM to be copied into and mirrored by the high performance on-board DRAM. Its like caching the entire operating system!

▶ Software switchable 68030 "fallback" mode for full backward compatibility with the A3000's native 68030 CPU.

▶ Incorporates GVP's proven quality, experience and leadership in Amiga accelerator products.

TRY A RAM DISK PERFORMANCE TEST AND SEE FOR YOURSELF HOW THE G-FORCE 040 OUT PERFORMS THE COMPETITION

Ask your dealer to run any "RAM disk" performance test and see the **G-FORCE 040**'s amazing powers in action.

So now that you know the facts, order your **G-FORCE 040** today. After all, the *only* reason why you need an '040 accelerator is ***SPEED***!

G-FORCE 040™

Up to 8MB of high speed (40ns) DRAM

Motorola 68040 CPU running at 28 Mhz

A3000 "CPU slot" connector

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UPDATE COLUMN

At the time of my writing this Update, which is a couple of days before the Australia/West Indies Match, I must say that I think the only way Australia is going to get into the semi finals is in our fantastic new game WORLD SERIES CRICKET (I hope I am wrong and by the time you read this we will be World Champions again!) As you may be aware, WORLD SERIES CRICKET allows you to play using all the current teams either in a World Series Competition or the World Cup itself and has all the team colours and rules and regulations pertaining to the competition. Let me just say at this point that WORLD SERIES CRICKET is far far superior to any other cricket game available, including our own Cricket Amiga which, unfortunately, was not as good as we would have liked, but WORLD SERIES CRICKET is the tops.

Many of you will have already had great enjoyment out of WHEEL OF FORTUNE and FAMILY FEUD on the C64. We are now able to offer you our latest release - THE PRICE IS RIGHT - another great fun game from Gametek. Unfortunately all these games are still only available on C64 and PC and not on the Amiga.

SCANNER NEWS: At last we are able to offer you a SCANNER with OCR Software so that you can scan text as well as graphics on your Amiga. This is the ALFASCAN PLUS 256 Grey Scale with Migraph OCR. By the time you read this it should be available in your local stores although the Alfascan without OCR is already being sold throughout Australia.

The new No. 1 in Racing Car Simulation - VROOM! Faster, faster, faster ... till the thrill of SPEED overcomes the fear of crashing. VROOM is fast! There's no other way to put it. This is the fastest Formula 1 racing game available - BAR NONE! You can run practice laps, play in arcade mode or compete against the world's best drivers in the Formula 1 circuit. Do yourself a favour and check our VROOM!

Finally, for all you Amiga owners - don't forget the fantastic range of Pactronics books being sold in all your major book stores, Grace Bros. and Myer stores which now include new versions of AMIGA DOS INSIDE & OUT and DESKTOP VIDEO. Which reminds me - for those of you upgrading to DOS 2.0 - make sure you get hold of Pactronics KICKSTART SWITCH which is an integral part of your new Amiga setup.

Pactronics Pty Ltd, 98 Carnarvon St, Silverwater, NSW (02) 748 4700

Pactronics

Ram Rumbles

Amiga May Be In Short Supply

At press time, news of possible shortages of the Amiga 2000 and 3000 arrived, at a time when some Commodore resellers are reporting very high demand.

Whilst some have speculated this could be a signal that new machines are closer than we think, nothing official has been heard from Commodore.

Whilst it is certain prototypes of more powerful models are being tested, delivery is unlikely within the next six months. Hopefully, a new low-end model will be displayed at the World of Commodore Show along with the long-awaited CD-ROM drive, now called the A570 or is it A690? Who cares, so long as lots of CDTV titles work on it!

If you're planning on upgrading to an A2000 or 3000, now is the time. Prices are cheaper than they've ever been. At around $3,000, the A3000 stack up nicely against a 486. By the time you add the cost of sound card and the right software to your typical IBM compatible 486DX, the A3000 starts to look comparable in cost.

MicroSoft Australia Use Amiga For Presentation Graphics

Although a carefully guarded secret, MicroSoft do use the Amiga for presentation graphics. They will probably deny it. In fact, they probably don't even know they do it. So next time you're wondering why the video projected graphics at their next conference look so good, you can stop wondering if *Windows PowerPoint* or some other clunky VGA program did all those fancy wipes and trick fades. No way Mr. Gates, the software that made all that happen was none other than *Scala*. Don't tell too many PC heads will you?

IBM to Launch New Hybrid Desktop PC

The computer media has flipped out over an announcement made by IBM to launch a new hybrid machine capable of running several operating systems. Although details are still sketchy, according to one source the new PC can run a choice of Unix, DOS, Macintosh or its own proprietary operating system which fully supports pre-emptive multitasking.

Clocking in at speeds competitive with existing top end 486 technology, the entry level model also boasts excellent multimedia capabilities. There's no need to worry about adding expensive sound cards, or hassling over whether your mouse driver will work with your chosen software package.

Other industry pundits have said they have already seen a huge range of software for the machine, including powerful database, wordprocessing, desktop-publishing, spreadsheet and graphics packages. All of the programs tested by one expert were said to work along together without a hitch, with good support for data exchange between programs.

The machine's strength is in its strong use of custom chips for handling graphics at speed of up to seven times that of a typical PC VGA display. Rumours are already surfacing of a major upgrade to the technology said to ship any day now. No official announcement on pricing has been made yet. For more details call (02) 427 4888 and ask for Mark.

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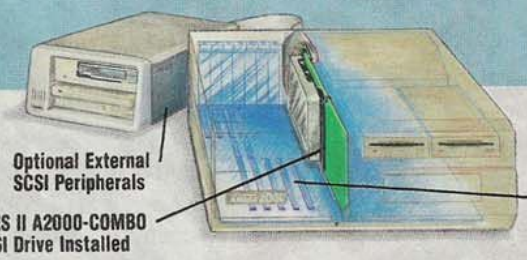

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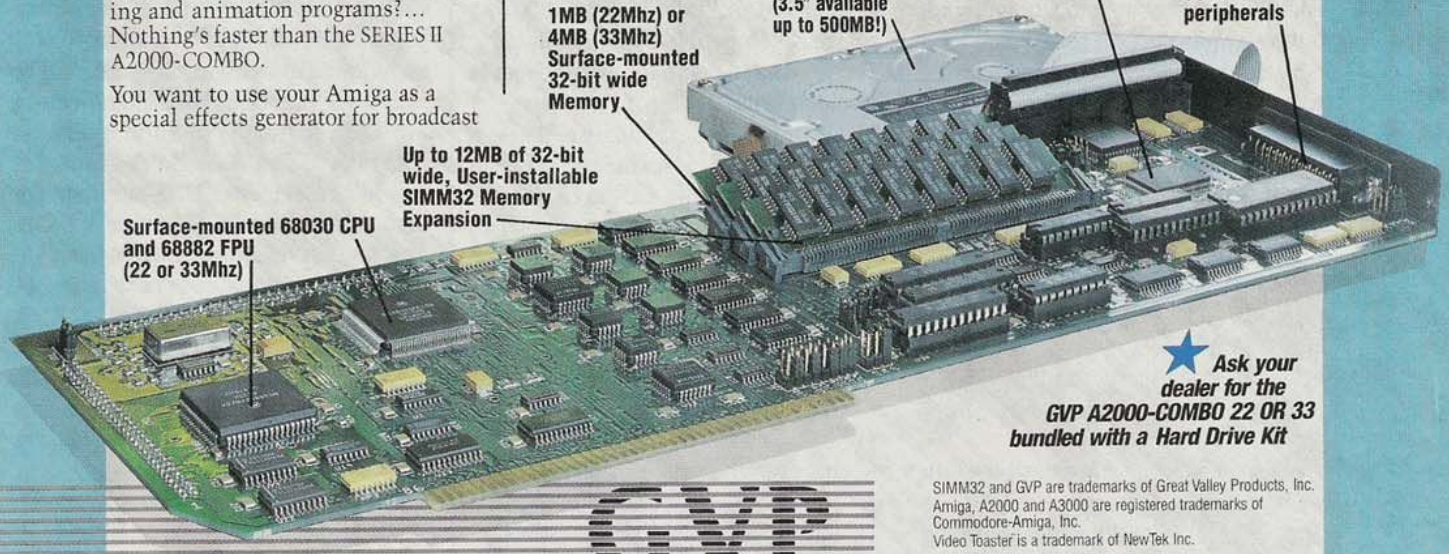

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NotePad NotePad NotePad

Amiga Floptical Drives

If you fancy the idea of having megabytes of storage, you might opt for a removable hard drive. However, a more cost effective mode of storage is the new floptical drives. These units hold an amazing 20 megabytes of data on a disk the size of a normal 3.5" floppy. Each disk looks and handles just like a standard 3.5" floppy disk but stores a whopping 20 meg of data at a cost of about $1.00 per meg.

Unlimited backup and storage, with all the advantages of a removable hard disk, without the expense. The Floptical drive requires a standard SCSI interface and is compatible with all Amiga models. It includes cabling, built-in power supply (for external models) and one disk. Internal models to suit the 3.5" bay in either A2000 or A3000 are also available.

The drive works with GVP, A3000, A2091, A590, ICD and MAST SCSI devices. It's compatible with all Amiga applications including *AMIback, Quarterback* and *CrossDOS*.

When used in conjunction with *CrossDOS* you can also read/write noraml IBM format 720k and 1.44 meg formats.

Floptical technology is an integration of precision optical tracking and traditional read/write magnetic media. The combination of these two technologies allows the floptical drive to reach these high data capacities using an inexpensive media.

Prices for internal versions A$949 (RRP), external versions with built-in power supply (all drives include a disk) A$1139 (RRP). Extra disks are A$35.00. For more information contact GSoft on (08) 254 2261.

Third Party 386SX Bridge

BoardVortex is currently developing a 386SX based PC/AT emulator that will convert an Amiga 2000 or 3000 into a 386SX compatible computer system. The registered name for this product is "Golden Gate".

Golden Gate is designed as a bridgeboard that closes the gap between the normal Zorro slot and the 16 bit ISA-Slot. It has a full AT-board size. The conception of Golden Gate includes the full integration of all resources of the host system such as RAM, floppy disk drives, hard disk, video, keyboard, mouse, serial/parallel ports, multitasking, RTC and sound.

This means for example, that a RAM expansion in a Zorro slot can be used under MS-DOS for instance as extended memory or that parts of the hard disk can be used for MS-DOS. Also the built-in floppy disk drives can be used under MS-DOS to read and write standard MS-DOS disks. Golden Gate offers the full ISA-slot standard in an Amiga2000/ Amiga 3000. ISA expansion boards like VGA controller, LAN controller, hard disk controller, RAM expansion can be used and they are also accessible from the Amiga side. Also bus-master boards such as Adaptec 1542 will work.

The Golden Gate PCB has a 80386SX-25 MHz CPU, a free socket for an optional 80386SX arithmetic coprocessor, 512kb base RAM, four free SIMM sockets for standard 1Mb 80ns and 4mb 80ns SIMMS, a free socket for an optional Intel 82077AA super floppy controller (can control 1.2mb, 1.44mb and 2.88mb floppy drives) with an appropriate 34 pin grid-header for internal and a 25 pin D-SUB female connector for external connection.

Golden Gate also includes an IDE-interface for IDE hard disk drives (40 pin grid-header). A special external option connector (9 pin D-SUB) is designed to control a little "switchbox" that connects a VGA or Multiscan monitor to both, the Amiga-Video output connector and, if available the Video output connector of a VGA/EGA ISA graphics card. The switchbox is fully software controlled by Golden Gate.

Golden Gate uses a C & T super single chip VLSI, codenamed "SCAT SX". The PCB is a 6 layer type using standard technology and SMT. The Golden Gate can use Commodore compatible hard disks in two ways: direct assignment of AmigaDOS partitions to MS-DOS partitions or assignment of MS-DOS partitions to a file within an AmigaDOS partition. Golden Gate offers also a standard IDE-interface for high performance IDE hard disk drive.

If no ISA video controller is installed the following emulations are available - CGA with 16 colours, Hercules EGA and VGA monochrome graphics, Toshiba 3100 and AT&T Olivetti Mode. Display in this case is a standard monitor (eg 1084S). Flicker Fixer boards are supported.

Golden Gate has an external 9 pin D-SUB option connector that can control a switchbox that connects a VGA or Multiscan monitor to the Amiga video output connector and the video output connector of an ISA EGA/VGA graphics card.

The Amiga mouse is emulated as a serial Microsoft mouse on COM1 or COM2.

NOW ADD 286 "PC/AT"™ COMPATIBILITY TO YOUR A500™ IN A "SNAP"

WITHOUT VOIDING THE WARRANTY ON YOUR A500!

GVP's SERIES II™ A500-HD8+ NOW FEATURES AN OPTIONAL, PLUG-IN, 16MHZ PC286 EMULATOR MODULE!

Not only have we added a PC286 emulator option to our best selling A500 hard drive subsystem but our Series II™ A500-HD8+ units are now equipped exclusively with Quantum™ hard drives offering the fastest access times and data transfer rates, unique disk caching and the highest reliability (MTBF) rating in the industry. Coupled with our world acclaimed DMA SCSI controller, everything from loading software to saving files is so much faster that you finally have the time to enjoy the fun and productivity that you bought your A500 for in the first place.

THE MAGIC BEHIND GVP's SERIES II A500-HD8+ HARD DRIVE MUSCLE

Check out these unequalled features:

- Choice of factory-installed 50, 120 or 240MB Quantum SCSI hard drives. Provides storage space of 56, 130 or 260 floppy disks!
- Game Switch for disabling the hard drive allowing compatibility with those few badly behaved games which don't like hard drives!
- A2000™ Hard Drive Performance. The A500HD8+ uses the same Custom DMA VLSI Chip and FAAASTROM technologies as our top-selling, high performance, Series II™ A2000 SCSI controllers.
- Up to 8MB of User-Installable Internal FAST RAM expansion (SIMMs).
- External SCSI port for connecting additional SCSI Peripherals such as Tape Drives, CD-ROM drives, etc.
- Unique Internal "Mini-Slot" Expansion Connector and Fan for Cool, Reliable Operation.
- Includes Dedicated Power Supply ensuring that your A500 power supply is not overloaded (a MUST for adherence to Commodore specs).

PLUS, now we offer something NO OTHER HARD DRIVE SUBSYSTEM can, an optional plug-in 16Mhz 286 "PC" Emulator!

THE MAGIC OF THE GVP/PC286 EMULATOR OPENS MICROSOFT WINDOWS — AND MORE.

Our new GVP/PC286 emulator module is the first A500 peripheral specifically designed to be plugged into our unique internal "Mini-Slot". Unlike other 286 PC emulators, this one fits right inside your A500HD8+ housing! So installation is a snap and there's no need to open and dismantle your A500™ and run the risk of VOIDING YOUR Computer's WARRANTY.

In fact your warranty worries are over, because the A500-HD8+ as well as the optional GVP/PC286 emulator module are now warranted for 2 FULL YEARS!!

The GVP/PC286 "Mini-Slot" module features:

- Runs MS-DOS (V3.2 or up), Microsoft Windows™ and literally thousands of PC applications. NOTE: MS-DOS Operating system is NOT Included.
- 16Mhz 80286 CPU. Up to 15 times faster than IBM's original PC!
- Complete Hercules™, CGA, EGA/VGA (monochrome) and T3100 video emulations. MS-DOS applications can use the A500's™ built-in parallel and serial ports transparently.
- Use the A500's floppy drive(s) to read/write MS-DOS floppies.
- Let's your A500 run MS-DOS and AmigaDOS Applications Concurrently!!
- 512KB of On-board Memory (RAM) for exclusive use by MS-DOS. Transparent access to the A500's memory for MS-DOS applications requiring more than 512KB of memory!
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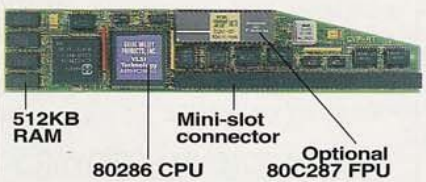
PLUS, your Series II A500-HD8+ matches your Amiga™ 500's good looks line-for-line and curve-for-curve.

So... Be Smart, before you buy anyone else's A500™ hard drive or RAM expansion system, ask the question: "Does It Have a Mini-Slot"? Why settle for anything less?

GVP/PC286 MODULE



GVP

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Distributed In Australia By POWER PERIPHERALS PTY LTD

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A500HD8	52Q	$900
A500HD8	105Q	$1280
PC286 AT Emulator		$570
16 MHz Fits inside HD8		

A2000HC8+52Q	$750
A2000HC8+120Q	$1050
A2000HC8+240Q	$1540
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A2000 COMBO 22MHz 68030/68882/SCSI/1Mb RAM	$1350
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Trade any A2000 SCSI controller for this price. Ring for details.

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A500 0.5Mb exp	$70
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1/1421 HIGH ST. MALVERN 3144
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The Amiga parallel port is emulated as LPT1 and the serial port is emulated as COM1 or COM2. Golden Gate has its own PC/At RTC.PC/AT sound with an extra speaker. The Amiga keyboard is emulated as 84-key PC/AT keyboard.

The physical dimensions are 336.50 mm x 106.75mm x 1.75mm. Golden Gate will be released in Australia in April 1992, as yet no retail price has been set. For more information contact Fonhof computers on (02) 639 7718.

Virgin Commitment to A570 Drive

Virgin Games has confirmed that it will be fully supporting Commodore's new A570 (previously known as the A690) CD-ROM drive for the Amiga.

"We have been developing full multimedia titles for CDTV for a while now" commented Steve Clark, Virgin's New-Media Manager, "and have already been developing enhanced versions of a number of games, which include full CD quality music, sound effects and speech. The first of these is *Spirit of Excalibur* which will be available in early March."

The majority of Virgin's forthcoming Amiga titles will be specially enhanced to take advantage of CDTV or the A570 drive and most are expected to retail at the same price as the floppy disk versions.

Virgin has also announced two full multimedia educational titles which are in the final stages of development; *Musicolour* and *North Polar Expedition*, both of which will retail at $49.99 (UK).

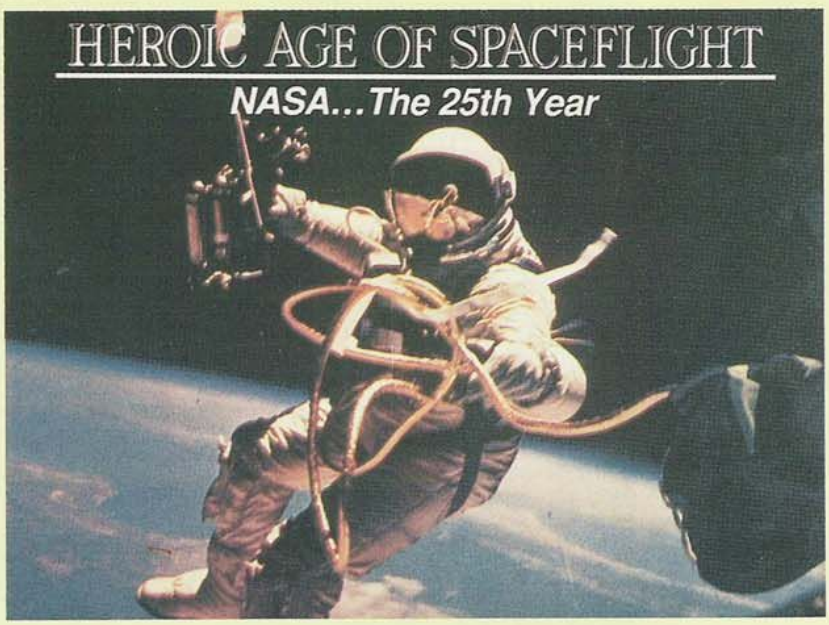
Sound Enhancer

Get CD quality sound from your Amiga? It seems too good to be true. After all isn't that why people have been asking Commodore to upgrade the sound chip? But as the rave reviews of the new Sound Enhancer pour out of the UK Amiga press, it is clear that a revolution in Amiga sound is occurring.

Sound aficionados will be pleased to know that the astonishing Sound Enhancer designed by UK firm Omega Projects is now available in Australia through Kaotic Koncepts. This amazing piece of hardware plugs into the back of your Amiga and totally transforms the quality of your sound output.

The Sound Enhancer works by straightening out the somewhat dodgy frequency response curve that a standard Amiga pumps out.

The result is a so called "flat response curve" up to 20 KHz, which is the sort of response you'd expect from a CD player.



#1—AND DRIVE-ING HARD TO STAY THAT WAY!

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Only GVP* Factory Installed *A2000 HC8+/52Q, 105Q or 200 SCSI Hard Disk+RAM Boards have a track record this good—over 20,000 satisfied Amiga® users and now a 2-Year *Warranty!

Don't waste your valuable time or money building a SCSI+RAM Controller from parts . . .

Because of our unprecedented pricing structure you can now get GVP's, brand name, *factory installed* A2000 HC8+/52Q, 105Q or 200 at a very competitive price.

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- Easy-to-Install SIMM memory modules for configurations up to 8MB—and support BridgeBoard users with the 6MB FAST RAM.
- Support for virtually any SCSI device.
- Fastest and easiest SCSI installation possible.

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Remember if the GVP *Factory Installed* seal shown in this ad isn't on your A2000 HC8+/52Q, 105Q or 200 box . . . it isn't the fastest, most powerful, longest warrantied, safest A2000 HC8+/52Q, 105Q or 200 you can buy.

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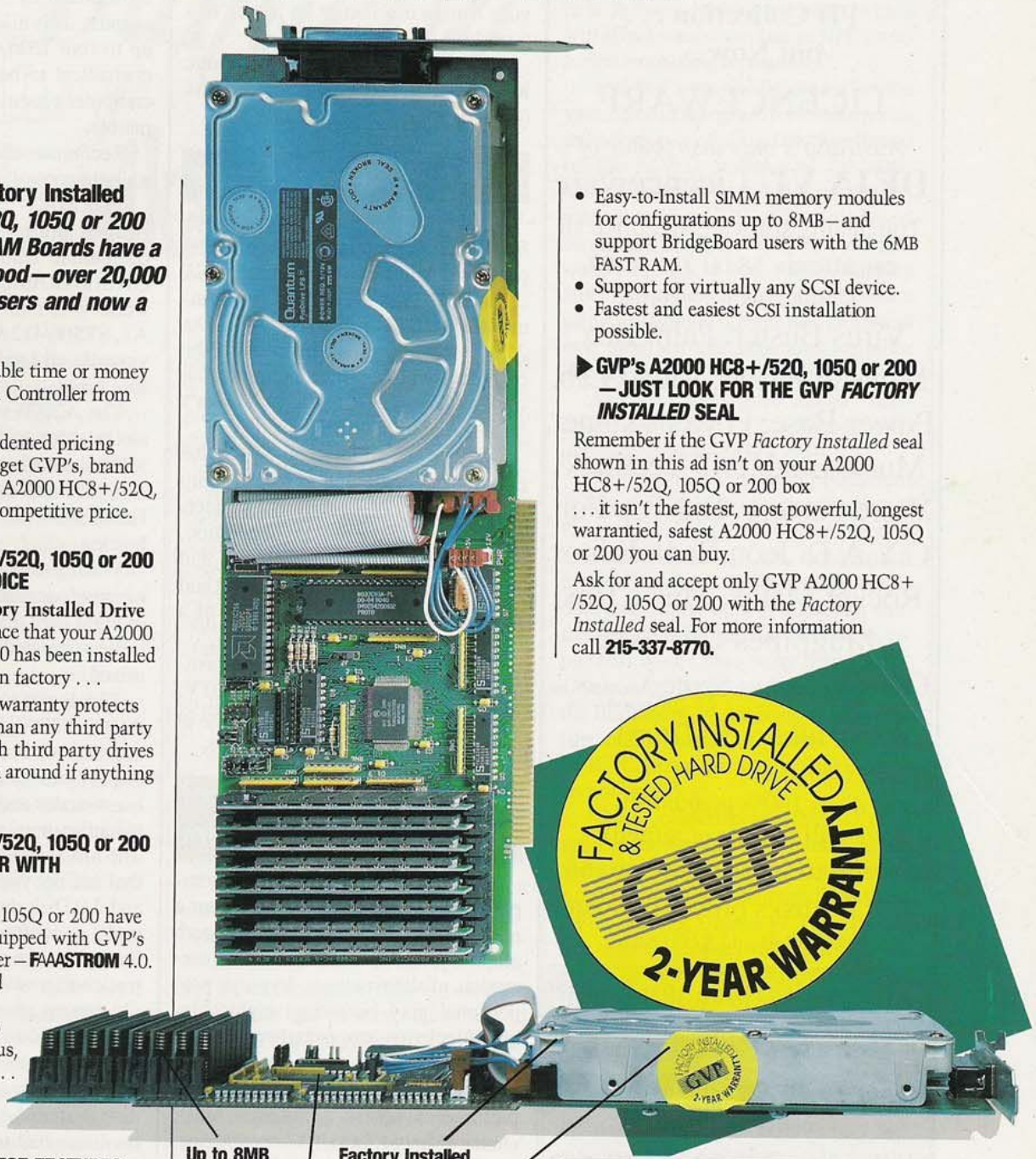

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VISA

In non-technical terms the sound quality improves so dramatically that you'll think you've been listening to the Amiga through a wet blanket all these years! With the Sound Enhancer plugged in, your Amiga can finally do justice to a good hi-fi system.

RRP $109. Distributed by Kaotic Koncepts Pty. Ltd, (03) 879 7098, fax (03) 819 5531.

NASA ... The 25th Year

Troika Multimedia is shipping the first interactive motion picture on compact disc available to consumers: *NASA ...The 25th Year*. Developed for Commodore's CDTV player, *NASA ... The 25th Year* is a 50 minute overview of the early decades of America's quest for the stars and is the first title in Troika's Heroic Age of Spaceflight series.

The viewer simply can watch the movie from beginning to end or jump directly to any of 12 different subjects covered within the movie. In addition, dozens of insightful discussions and colour images of famous spacecraft and their missions are only the touch of a button away.

Troika are excited about the prospects for both this title and CDTV. *NASA ... The 25th Year* is designed to display properly on PAL tv screens.

Super Desk Jet Colour Printer Driver

Owners of HP Colour-Deskjet compatible printers will be happy to hear a new driver is available featuring superb graphic prints - exceptional colour correction, all 4096 colours, 16 greys, proportional grey balancing, eight shingling/depletion options and outstanding grey scale images.

Superior text control is offered - with preferences access to internal fonts, choice of Letter, Legal, A4 or envelope, suppress unwanted pagefeeds, enhanced AmigaDOS control codes, 14 powerful extended commands.

The driver requires AmigaDOS 1.3 or 2.04, RRP of A$59.95. For more information contact Stetronics on (03) 305 5001.

IBM Drive Controller Adaptor

Stetronics are also importing the Palomax-125 Autoboot Interface adapter. This allows the connection of up to four IBM compatible hard disk controllers to be used on any Amiga computer system and is Version 2 compatible.

Recommended retail price to handle a single controller will be A$349.00.

The MAX-125 autoboot Interface Adapter allows you to connect IBM compatible hard disk controllers and drives to all Amiga computer systems. It works with many 8 and 16 bit XT and AT, ST506/412 & ESDI controllers and virtually all hard drives of these interface types.

The A2000 version takes only one slot position to handle two controllers when inserted in the rightmost expansion slot and can be configured as a HardCard with an optional mounting bracket.

Priority selectable booting/mounting of up to four controller boards for a total of eight hard drives is supported. Controller types and drive sizes can be intermixed.

The device is compatible with A500/A1000/A2000/A3000, and most CPU coprocesser boards; supports all ECS display modes and A3000 cache and burst modes and can coexist with other manufacturers' autobooting controllers. The MAX-125 is fully compatible with the FastFileSystem and AmigaDOS V1.3 and 2.0. Disk data transfer is done with multi-sector (up to 256) blocks at a time through programmed I/O. A write-thru track buffer with selectable read threshold sensing greatly speeds up short file transfers. Transfer rates clocked to over 567kb/sec write, 768kb/sec read with 030 CPU. (Faster than most other hard disk systems). Supports software and hardware bad track remapping. MAX-125 boards are assembled and tested and have a one year warranty. Some assembly and soldering is required. Specify computer model when ordering.

For details call Stetronics on (03) 305 5001.

TechnoSound Turbo $79

Hardware plus Software:
Upgraded version of New Dimensions' acclaimed hardware and software stereo sound sampler. Simply plug your sound source into the unit and fire up the sampling software. New multi-tasking software features a MIDI sequencer, and a host of exciting special effects including real-time echo, phasing, pitch shifting and other voice synth effects.

"...no-nonsense, low-cost, easy-to-use system..." 81%, Amiga Format, September 1991

Audio Engineer Version II

Audio Engineer software only **$99**
Audio EngineerPlus **$369**
Audio EngineerJunior **$189**

RocGenPlus $299

Use your Amiga to create special effects on video with this Genlock from Roctec.

Video Digitiser/Colour Splitter $499

Combines colour splitter and DigiView™ compatible digitiser in one box. Featuring saturation control, S-VHS or composite input, manual or auto colour select, external power pack, cables for connecting Auto-Select Module and ColorView software.

DigiFixer $call

This Australian-made product allows DigiView to be used with colour home video cameras without messy interference.

Video Breakout Box $89

With S-VHS, RCA and Scart inputs and outputs, this unit allows any video equipment to be connected together.

Flicker Free Video (ICD) $call

Eliminates flicker on any Amiga. Plugs into Denise socket.

Optical Mouse $98

Top quality Golden Image Mouse. Beat those mechanical blues!

Amiga Beetle Mouse $69

High resolution (320 DPI), ergonomic mouse for the Amiga. Lots of colours available!

Analog Joystick Adapter $30

Get the most out of your flight simulator. Allows IBM and Apple analog joysticks to be used with the Amiga

Amiga Hand Scanner $398

400 DPI scanner from Golden Image. Touch Up software included.

Phoenix A1000 Motherboard

Includes 68881/2 socket, SCSI controller, A2000 expansion slot and video slot, 8 MB daughterboard connector, battery-backed clock, sockets for 4 Kickstarts (1.3 supplied), drive swap switch.
1 MB chip RAM $895 2MB chip RAM $1095

KAOS KRUNCHER

14 MHz Accelerator $95

- Australian designed and made
- Simple no-solder installation
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- Doubles processor clock speed to 14 MHz
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- Switch between 7 & 14 MHz while running software - no need to reset
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KCS Power PC Board

PC Side	Amiga Side
Video support:Hercules/ CGA/EGA/VGA	512K Ram expansion
Disk support: Int 3.5, Ext 3.5 & 5.25	512K Ram Disk
Extensive Hard Drive Support	Clock/Calendar
Phoenix-Bios-NEC V30 8MHz	Totally transparent
Uses all Amiga ports	Fits into A500 trapdoor
Clock/Calendar + many more features	Adapter for A2000/A3000

KCS Power PC Board for A500 **$475**
KCS Power PC Board with DR DOS 5 **$535**
KCS Adapter Card for A2000/A3000 **$185**

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Internal disk boot selector.

Mouse Master $39

Mouse/joystick switch box.

MIDI Interface $45

Standard MIDI interface:1 MIDI in, 2 out, 2 thru.

Data Switch $29

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C64/C128 Mouse $29

Mouse for C64/C128.

Canon BJ10e 'Little Squirt'

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Choose between any 3 Kickstart ROMS at the flick of a switch. Plugs into A500/A2000 ROM sockets. Ribbon cable lets you locate the board out of harm's way. Supports Workbench V2.0. Three position switch can be mounted anywhere.

C64

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Say goodbye to your printing nightmares with this new software package from Germany.

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Kaotic Koncepts supports the intentions of public domain authors, namely to allow wide distribution of software with minimal copying charges. **All Pak prices INCLUDE postage and handling.** These disks plus **FISH** and **many more** are available **INDIVIDUALLY** for **$2.50 each** (plus **$1.00** P&P for any size order). **Katalog disks $2.50 including postage.** All disks supplied are **Nashua brand. Blank disks $15** per box of 10. **Nashua disk boxes** (hold 90 3.5" disks) **$17.**

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5 disk Paks of arcade action
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User Report : Upgrading Your Amiga 500+A590 to Workbench V2.0

Although still in short supply, hundreds of Amiga owners have already upgraded to the new operating system. Here's a first hand look at what's involved, by Alan Stuart.

After a lot of waiting, I finally received the phone call I had been waiting for. "Mr Stuart. This is Sandra from Headlam Computers. Your Amiga Workbench version 2.0 has arrived. Do you still want it?"

"What!", I thought. That is like asking me if I want a million dollars for nothing. After my third or fourth "Yes!", I asked "How much?"

"$130, plus postage."

"The cheque is in the mail," I replied. Four days later there was a large package waiting at the Post Office. "Can't be my Workbench v2.0 - too big", I thought. I was wrong. What you receive in the package is very impressive.

The Workbench v2.0 upgrade contains a new Kickstart chip of 512K size, a three ring binder entitled "Using the System Software", the contents for the binder, a small book entitled Amiga Release 2, Getting Started and four disks labeled Workbench v2.04, Extras v2.04, Install v2.04, and Fonts v2.04. Also included are the usual licensing agreements and warranty cards.What follows is a description of the installation of the new operating system on my computer, an Amiga 500 with A590 20Meg hard drive and 3Mb RAM. Most of what applies here equally applies to an Amiga 2000 user upgrading.

Safety Precautions

Firstly, I backed up the complete contents of my hard drive. Using *Quarterback* this is a painless operation. If anything went wrong with the installation, I wanted to be able to recover my old information.

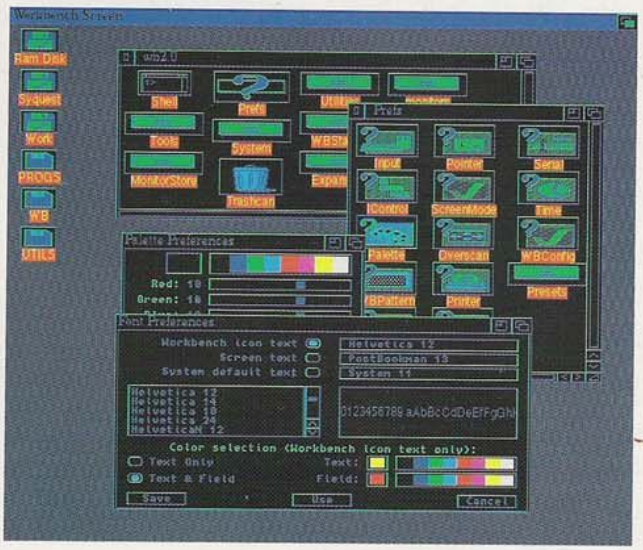
Normally, your authorised Commodore Dealer will arrange for fitting of your new Kickstart ROM. However, since in Port Hedland, I am over 1700 kilometers from the nearest Commodore dealer and my computer is well out of the warranty period, I elected to fit the Kickstart myself. If faced with this option, it is a relatively easy task.

The fitting of the ROM chip is explained very clearly on a separately supplied sheet. The only hard bit is the removing of the six-pointed screws Commodore uses to hold the case together. An allen key of the right size does the job nicely. However take heed of Commodore's warning.

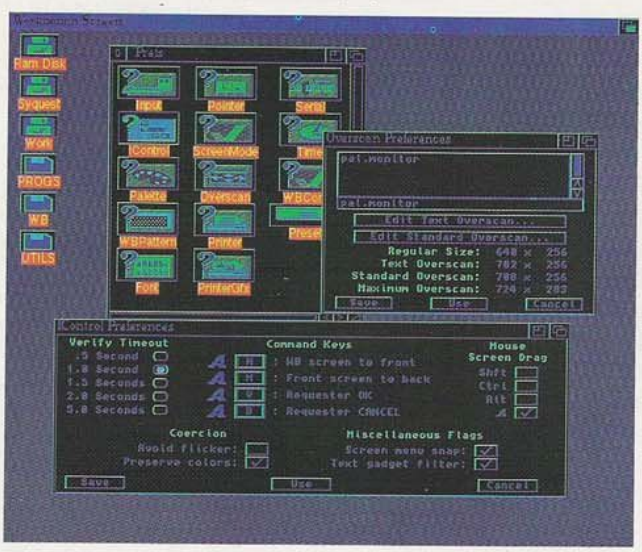
WARNING! HARDWARE INSTALLATION BY THE USER WILL VOID THE WARRANTY FOR BOTH THE ROM AND THE AMIGA. COMMODORE ASSUMES NO LIABILITY FOR IMPROPER INSTALLATION.

Clear enough!

Inside the Preference Draw you'll find many new icons



Setting screen preferences



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Art Dept Pro v2.0	**$ 319 !**	Karafonts	$ 89
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AudioMaster III	**$ 119 !**	**KCS 3.0 Level II**	**$369 !**
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Bars & Pipes Pro	$469	Masterpiece Fonts	$249
Bars & Pipes Multimedia Kit	$ 79	Masterpiece 3D Fonts	$128
Blitz Basic	**$ 99 !**	Math Vision	$229
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Buddy System/Pagestream	$ 69	Pen Pal	$149
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excellence!	$189	Trax	$165
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Gold Disk Office	$329	**Sculpt 4D**	**$ 599 !**
High Speed Pascal	**$275 !**	Wordworth	$289
Imagine v2.0	$call	***and many, many more!***	

New Products!

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The highest quality 8 bit sampler yet designed, CrystalSound features extremely fast sample rates (up to 70,000 Hz) in full stereo, noiseless sampling, and *new* crystal locking, ensuring consistant sample periods and giving the most accurate samples possible. Full featured software and utilities are included, for only **$199**

Alfa GreyScale Hand Scanner

Excellent value for money. This scanner gives up to 256 scales of grey, unlike the black and white offered by other scanners of comparable price. This gives you much greater quality when scanning photos & pictures. Scanning and editing/merging software is included. A must for DTP, and a steal at only **$499**

S.A.M

SPMTE And MIDI interface

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KickStart Options

I also fitted a Kickboard from Unitech Electronics in Sydney (02-820 3444), an Australian product available from most good Commodore dealers for about $40. This plugs in where the Kickstart ROM goes and allows two Kickstart ROMs to be installed in the machine. By flicking a switch (ONLY when the computer's power is off), I can switch between Kickstart v1.3 or v2.0.

I strongly recommend that you read the Getting Started manual thoroughly before proceeding. It is extremely well written (that's a new one for Commodore) and sets out what to do clearly. Basically, the installation of WB v2.0 is as follows. Boot the Amiga with the Install disk, open the Workbench screen, then click on the UpdateWB icon. You will be asked various questions. The program will then go ahead and copy various files from the four disks to your hard drive and delete some old un-needed files from the hard drive. When the "Software installation complete" message appears, you can reboot the system.

One good part of the installation is the creation of a directory named OLD on your hard drive. To this directory is copied your old Mountlist, Startup-sequence and Shell-startup.

Reformatting

Next, to get the most from your hard drive, you are encouraged to reformat it under 2.0. Commodore claims that reformatting under 2.0 can cut disk access times by up to half compared to 1.3 - much cheaper than buying a faster drive! Because formatting will erase everything on the disk, you are instructed to back up the drive up with a 2.0 compatible program.

Fortunately, Commodore supply a program called HDBackup, which can be found in the TOOLS drawer. Unfortunately, this program is extremely slow compared to something like *Quarterback*. Once again, follow the instructions for formatting your drive exactly and you will not make a mistake.

When the drive was reformatted, I decided to completely reinstall my software, instead of recovering files from my backup. To do this, I rebooted from the Install disk and rerun the UpdateWB program. This put a complete copy of Workbench on my hard drive. Next, I booted from the hard drive and installed various programs. Some of the programs I use (*Pagestream, Excellence!*) have programs to install them to hard drives and they worked fine. Finally, I customised the environment to my liking with Preferences.

Preferences

Preferences under 2.0 is completely different to what I have been used to. There are 12 preference icons in the Prefs draw. These represent 12 different

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preference programs. All the usual settings can be changed, plus a host of new settings such as Overscan and Font control. To describe even the basics on the new preferences would require its own article. I will write a complete review on preferences for the next edition.

The whole look and feel of my Amiga is completely new. The drive hums along significantly quicker. I am embarking on a whole new learning curve. So, what are the main differences?

What's New?

Workbench can be set to 2, 4, or 8 colours. The more colours, the slower the machine runs. Background patterns can be set on Windows and Screens. Tools are included for screen blanking, auto activation of windows, Click to Front for windows, programming function keys, etc. All these features make a lot of Public Domain/Freeware programs redundant.

Ed, the standard text editor, now supports mouse control and user definable menus. Out the door goes TxEd. The AREXX programming language is included. The powers of this language will be recognised as more programs are written supporting its features. Some software currently available which works with AREXX includes *AmigaVision, CanDo, DigiPaint3* and *SuperBase*.

Compugraphic

Outline fonts are supplied for jaggy-free printing. There is a program called Fountain that will produce the necessary files from Compugraphic fonts (such as those supplied with *Professional Page)* to work with the new system.

Many commands once found in the 'C' directory (DIR, COPY and so on) are now memory resident, meaning less disk access and faster operation. An Icon editor with the ability to merge two icons is supplied. You can also view files as icons or by name. And much more!

Compatability

Now, down to the basics. How compatible is 2.04 to existing software? From various magazine reports, many games won't work. So, if you need to play a lot of games, install a Kickboard.

KDVIII crashes the system. I am sure this very good program will be enhanced soon. *Excellence! v2.0* operates fine unless you try to use an outline font. *Wordworth v1.1* works very well and supports outline fonts.

Using outline fonts and *Wordworth* Ultraprint Super output produces almost laser quality output from a dot matrix printer.

Pagestream v2.1 and *DataRetrieve Professional* work fine. *Quarterback v2.3* worked on backup and restore, however once the program was exited, the floppy drives were no longer known

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to the system, and a reboot was required.

Also, using *Spliner*, a screen blanking program, stopped floppy access when the screen was blanked. As *HDBackup* had some problems, I will still use *Quarterback*. The public domain program *MemoPad* works. *Power Packer Pro* works very well and programs crunched with this program decrunch without any problems.

Even the old stand-by word processor, *Textcraft Plus*, works. Many public domain utility programs such as *Mymenu*, etc. will not work under v2.0. Also, the Getting Started manual lists two pages of programs from numerous companies that have been tested OK under release 2.0.

Documentation

The manual, Using the System Software, is well written and presented. There are four main sections, Workbench, AmigaDOS, AREXX, and Appendices. These are each broken down into smaller sub-sections. Also, a handy fold out reference sheet is included.

So much has changed with this new operating system, that a complete read of the manual is mandatory. Anyone who thinks they don't need to read the whole manual is only kidding themselves. Almost every aspect of the Amiga's operating system and system files are discussed in great detail, even down to the absolute basic files that are required on a floppy to make it bootable. A lot of information that basic users have needed is now given.

All through the manual there are screen shots, and handy hints. Also sections specific to hard drive systems are clearly indicated by a hard drive symbol. I haven't yet found any typo errors in the manual. I hope this will become the standard for future documentation from Commodore.

Conclusion

One problem I had was that the supplied *HDBackup* program would not do selective restoration of files from the backups. I was continually presented with BRU error numbers. BRU is the actual hard drive backup program, *HDBackup* is a Workbench interface to BRU. Nowhere in the manual are the meaning of these error numbers given. A sad oversight.

Luckily, I had another set of disks that contained a backup using *Quarterback*, and I was able to resurrect all my word processor and desktop publishing files, along with other needed programs and utilities.

All in all, I am very impressed with the final package, and have no regrets in upgrading. Programs will be released that require version two of the operating system. If you do more than play games, spend the money and upgrade.

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Technosound Turbo

Our resident sound expert, Daniel Rutter, checks out another entry to the sound digitising world.

A little while ago I reviewed a gadget called the Phon v5. This is a mono sound sampler, made in Australia, which comes with PD sampling software. The makers, Nonchalant Design, are due to release a stereo version as soon as they write the software for it. The big attraction of this otherwise unexciting package is its price - $89. Now we have a stereo sampler, complete with quite impressive software, which comes in at a frankly extraordinary $79.

The gadget in question is the clumsily titled *Technosound Turbo* (TT for short). It comes with a comprehensive sound sampling and editing package which includes song composition features and MIDI capabilities.

This startlingly cheap package actually contains a range of features which belies its cost, although it must be said that these features are often less useful than fun.

Upon plugging in the sampler, powering up and booting the software, the user is presented with a complex array of gadgets and buttons. The accompanying manual, while not a typographical work of art, explains all the features pretty adequately, if in a mildly peculiar format. The absence of an index doesn't really hurt, since there are only 15 small pages to hunt through.

First Impressions

Initial impressions of *Technosound Turbo* are good. It's easy to get a sample loaded or digitised from outside, and a lot of buttons work pretty easily first time. Once I got past the pure mucking about stage, it became apparent that this inexpensive package contains some quite unusual features.

To start with, *Technosound Turbo* has a number of effects built in. These allow the user to extensively manipulate a sample in memory, or a real time audio feed from outside. None of these effects are studio quality, of course, since they are only 8 bit and run at a comparatively low sampling rate.

For fun applications, or where people aren't listening too hard, they're more than adequate. Available direct sample effects are:

- Echo, which gives a single repetition of the sample overlaid at reduced volume;
- Reverb, which produces continuous decaying echoes (a plate type reverb, if you know what that is);
- Hall, which does the same thing only more so;
- Room, which produces shorter reverbs for a more enclosed sound;
- Amp, which cranks the sample's volume; Soft, which does the reverse;
- Filt, which passes the sample through a top cut filter to reduce noise;
- Pack, which halves the length of the sample by excising every other byte;
- In and Out, which produce fades in or out. All these effects can be restricted to any part of the sample in RAM.

On The Fly

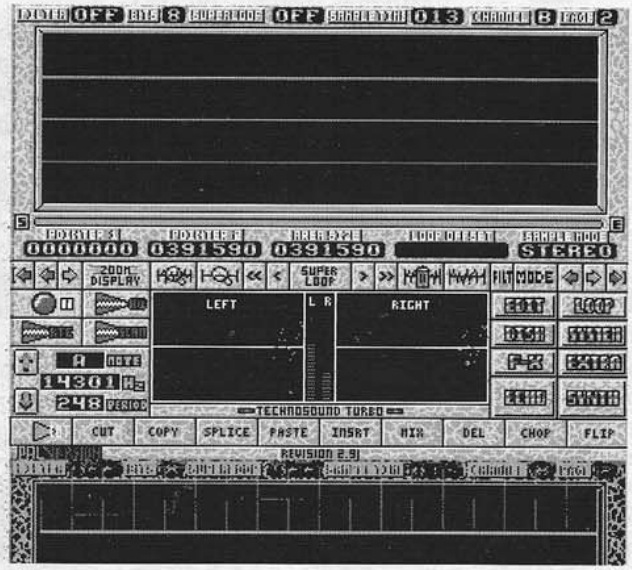
Real time effects, which affect whatever you're sending to the sampler as it happens and pump it straight out of the stereo or monitor speakers, include Echo, Reverb, Hall and Room again, except the reverb effects seem to be reduced to a single echo by the constraints of the real time mode, making them less useful.

Added are Thru, which lets you hear the unadulterated input signal, Vibrato to vary pitch and Phaser, which executes a harmonic sweep to change sound tone, but doesn't do it nearly as well as pro packages like *Audio Engineer II.*

But for the money, whaddaya want? Three further echoes are also possible - Stereo Echo, Mega Echo and User Echo. The first two are, respectively, a simple delayed channel echo and a reasonable multi-echo effect. User Echo, however, is fully configurable and allows all four sound channels to have their own delay and volume settings, allowing some quite complex effects to be created.

Further real time effects are designed to be used with a microphone, which

is a tad odd since the *Technosound Turbo* won't accept mike level input. If you pre-amp your mike, though, by passing it through a regular pre-amplifier or similar to get a decent one volt signal, they're fine. The effects are Dalek, oh, very original; Exterminator, more of the same; Voice Synthesis, hard to describe; Intoxication, a slow pitch slide; and Legless, a virtually random pitch and speed variation. None of these have any valid reason to exist, but are undeniably quite fun to muck about with.



Monitoring a stereo source

Going Loopy

Technosound Turbo also features simple and easy to use looping - allowing the user to play a sample or chunk thereof forward, backward or each way in turn.

A "Seek Zero" function is provided, to prevent clicking when loops suddenly hop from one sample value to another. Innovatively, it also includes a "Seek Loop" function, to hunt for peaks in the data if zeroes don't occur just where you want them. I've not seen this feature before, and it's a nice touch.

Other miscellaneous buttons are Cross Fade, which fades the start and end of a sample for smoothness, and Multi Task, which flicks the *Technosound Turbo* screen to the back to allow other programs to run. To do this you must also click Release Memory, which instructs *Technosound Turbo* to release the death grip on your RAM which it automatically executes upon startup. Only the indicated part of the sample window will be kept as work space.

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There's also Ramscan, which allows you to play your way through RAM, making it easy to hunt for samples left there by games or demos after a warm (three key) reboot. Mind you, merry cutting and pasting in this memory map can cause a harmless but spectacular crash.

The Page function allows fast RAM to be used for sampling. How this works is not clearly explained in the manual, but suffice to say over 700K can be accessed for sampling into or manipulating it on a stock 1meg Amiga, and on my 3meg machine a great deal more - much the same as *Audio Engineer.*

A less useful but nonetheless unusual feature is the option to switch to four bit sampling, instead of the usual eight bit. In this mode none of the effects work and sound quality is lower (since there are only 32 possible amplitude levels instead of 128), but samples take up half the RAM.

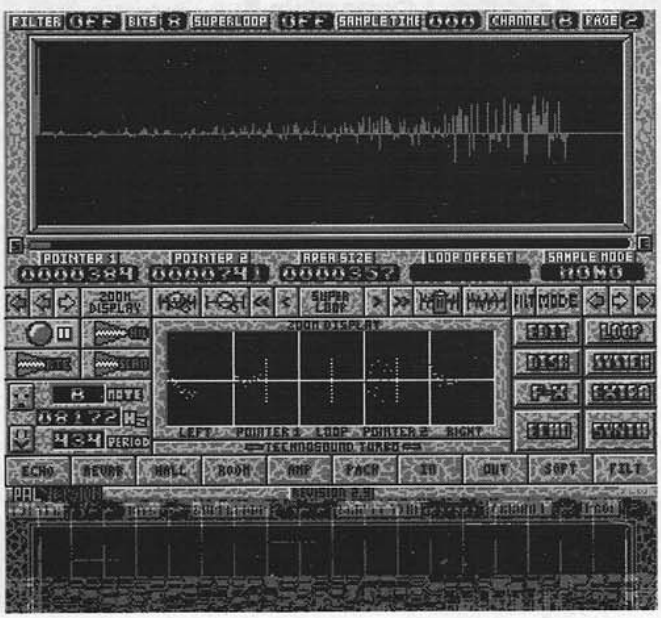
Play HQ allows the user to play samples recorded at a high sample rate with the rest of the computer locked, improving sound quality somewhat. Another feature not typically found on cheap samplers.

Technosound Turbo also allows the user to sequence samples. Up to 9 different samples can be strung together in any order and up to 48 playing events can happen. It's not at all sophisticated, but for sticking together simple sound effect sequences without splicing up a monster sample for every one, it's not bad. None of the effects can be used while in sequencing mode.

MIDI Support

There is also a MIDI (Musical Instrument Digital Interface) option for the sequencer, which allows up to 19 samples, in up to four voice polyphony, to be played over up to three MIDI octaves. If I were to call this feature much more than a toy I'd be lying, but it's cute if you happen to have access to a MIDI instrument and interface and want to clown around a little. The core of a modern recording studio it ain't.

The only real problems I could find with the software, when you overlook the lack of high end power features, centered on the glossy impression it initially presents. When, for example, you click the disk icon to bring up the bar of disk options, the bar scrolls left to right across the screen, covering whichever bar was there before. Now this is a cute effect the first time you see it, but gets less appealing after a few more uses. The programmers seem, to be highly enamoured of scrolly bits. The aforementioned icon bars scroll. The file requester scrolls. The status screens scroll.



Editing a mono sound sample

You could get sick of scrolling. But apart from that, the software does what it sets out to do. It's a remarkably good package for the home sampler who hasn't the least need for the sort of whizz-bang gubbins that behemoths like *Audio Engineer II* and the like can deliver, and who really just wants to give the kids something to keep 'em (relatively) quiet the next time it rains, and not too bad for low-level "serious" applications.

The sampler is enclosed in a box the size of a pack of cards, which plugs into the parallel port (A1000 users will need a "gender bender"). Stereo input is via standard RCA jacks, and New Dimensions provides an adaptor cable and jack to connect these to any stereo headphone jack, 1/8" or 1/4". Inside, everything hangs off one small PCB, with the RCA jacks securely bolted to the case. It all looks very secure, although this is de rigeur with samplers anyway - hardware failures are rare.

Conclusions

Audio quality isn't too hot compared to monsters like AEII's *Audio Imager,* and actually sounds a bit noisier than the *Phon v5.* Since I didn't have the two samplers side by side, though, I can't be sure. Certainly the sound quality while using the real time effects is, to me, pretty dire. Mind you, I normally run a 16 bit, 44kHz Boss effects module, against which all others pale. The home user ought to be happy.

Overall, the *Technosound Turbo* is a darn good sampler for people who basically want to muck about with sampling and have fun. It's not a professional package, but nonetheless should prove more than adequate for people like game authors and presentation creators, who just want reasonably good sounds with minimum fuss and plenty of flexibility. The software isn't up to *Audio Engineer II*'s standard, but for the price the quality is extraordinary.

A recommended product.

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Turbo Print Professional

We all know the Amiga can produce fantastic graphics, but what do you do when you feel the need to preserve them for posterity in print. George Kimpton examines a method which guarantees improved results!

While there will always be some limitations to what the mechanics of a printer can do, the software drivers are currently the greatest weakness. Short of resorting to an expensive desktop publishing program, graphics output from the majority of programs have created mixed results.

If you have the facilities to do comparisons of early printers and early drivers, around the time when the Amiga was born, with the present day drivers and Workbench 1.3 or 2.04 you will find a marked change even with old printers. It is amazing the quality which can be produced by the latest drivers and even a 9 pin printer when it comes to text. *TurboPrint Professional* offers to improve even further using the same improved driver principles.

First Impressions

The package includes a single disk, which is copy protected, and a comprehensive manual which explains in detail each control used in setting up the program. The Workbench in use must be 1.2 or higher. Installation on a hard disk is recommended but not mandatory.

You can try copying *TurboPrint* any which way you like with any program to make your legal work copy but it will still ask you to insert the original disk for verification. This can be a nuisance, especially with a hard disk based system. You can send off to GSOFT in South Australia, enclosing your serial number and proof of purchase, and they will organise a code which will allow floppies or hard disk installations to work without the master disk.

TurboPrint is certainly a very comprehensive program covering just about every variation in printer controls and parameters possible. It is this very thing which makes *TurboPrint* look rather daunting. Added to this is an ominous sounding warning which reads: "*TurboPrint* must not be used in conjunction with important data or programs not yet saved to disk. Always save your data prior to installing *TurboPrint* or commencing a printout".

There are four separate multi-choice screens used to set up a wide range of parameters, all the way from what printer you are using to what size poster you need and how you intend to handle the colour separation. Entry to each of these screens is by clicking on one of four icons present on each screen.

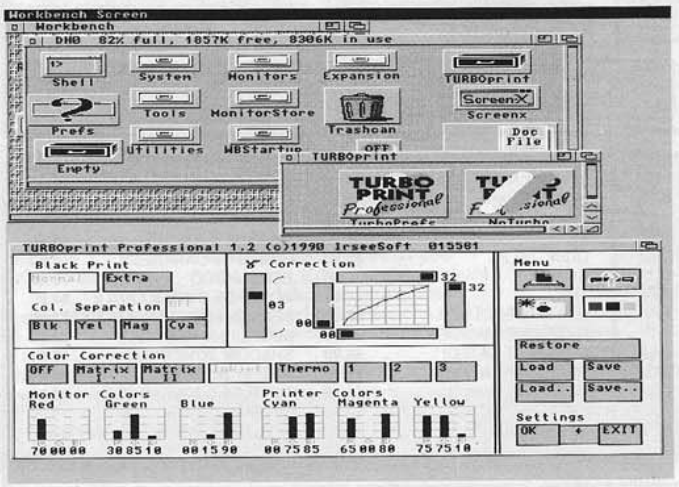
Printer Selection

The first screen gives a choice of eleven printer brands including Epson, Canon, Hewlett Packard, Oki and Star. Without knowing just what various models of printers have in common I am left wondering at the selection of drivers made available. Epson is fairly well catered for with the EX, FX, LX, LQ and SQ series drivers available - although the Epson LQ500 is apparently not supported as a friend tells me he gets some weird results using the LQ drivers.

Star is somewhat limited with LaserPrinter 8, LC10, LC & XB-24 and the NB-24 only, however Epson drivers may suffice here for other models. A Cannon 300 series driver is in the pipeline I am told. Drivers can be imported from other disks if required. It surprises me that a program of this type, originating in early 1990, has so little in the way of new drivers after nearly two years.

After nominating the printer, the print density is selected. Next the grey shade dot pattern is chosen from 14 possible dot arrangements including two Floyd-Steinberg algorithms, a half tone and a special 9 pin arrangement. Each of these patterns can be rotated 90 degrees for additional effect.

The print type control selects the



TurboPrint colour control, Gamma correction and file menu

continued on page 24

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number of pins used on each sweep. Apart from a normal arrangement there is a half line mode and there is also a 2/3 mode which only uses two thirds of the pins available. These extra modes are said to better utilise the printer ribbon and reduce the grainy line effect between sweeps.

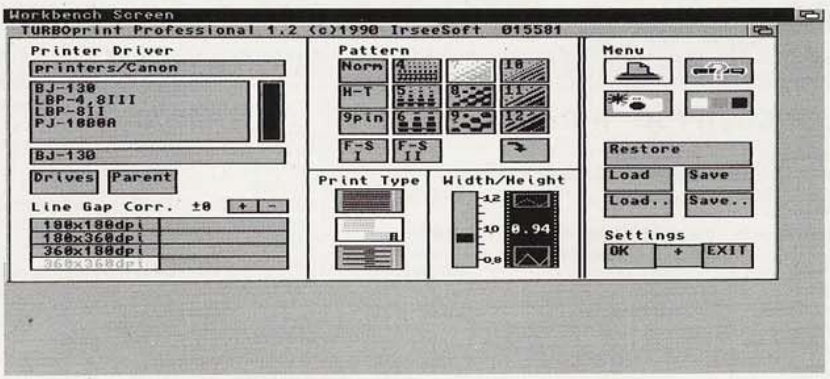
There are also two further adjustments, one is to compensate for pixel size variations between the screen and the printed page while the other allows you to fine tune the spacing between printed lines. It is possible with this last control to close up the gap between lines or where overlapping occurs to move the lines apart.

Preferences

The preferences screen takes over a number of settings from the Workbench preferences. Clicking on one of the icons allows you to choose between black and white, grey scale or colour output, positive or negative and/or vertical or horizontal aspect prints. The black and white threshold is adjustable and three levels of smoothing are provided. The levels of smoothing differentiate between the steepness of lines.

A wide and narrow paper choice is provided along with the ability to use inches or centimetres as measurement units. Paper dimensions, offsets and justification can also be controlled from this screen. Picture format and scaling can also be set.

Finally you can direct the program to recognise either Workbench or Turbo settings and which output to use: parallel, parallel two, or serial. Parallel two is a special output which utilises Turbo's parameters.



Halftone pattern and printer driver selection

Additional Functions

Here it is possible to decide how many copies are needed, whether to have automatic form feed, how many lines space between pictures on the same

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page and whether to mirror the output horizontally or not for heat transfers.

There is also a poster mode where, by juggling several factors, it is possible to print out a picture in sections which are then joined together to provide the finished poster. The instructions in this section are not well written and tend to be rather confusing. A little experimenting is needed to clear things up. A switch is also provided to allow automatic height-width ratio correction in this poster mode.

There is a Hard Copy Mode whereby you are able to either print out the current Amiga screen or part thereof (screen dump) or save it to RAM or place of your choice. Hot key arrangements are available to recall preferences for last minute adjustments before printing out the dumps.

A FastMem control facility is provided for programs that are fussy about extended memory. Much is made of this program being reset proof (more about this later) and on this screen you are able to choose whether you store the program code at the "top" or "bottom" of your memory.

Colour Conversion Screen

This last screen deals entirely with colour or grey shade controls. It is possible to produce colour separation printouts. With the "Extra" button you can also create a more intensive saturation of black surfaces by laying down each primary colour simultaneously whenever black is used.

Those familiar with colour printing will know that there are inherent problems in matching screen colours to those produced by the various printers. With this in mind we are allowed here to choose one of seven preset colour corrections to match our printer. Three of these correction settings are adjustable to suit printers not catered for in the presets. The RGB settings in these last three are adjusted by slider controls.

Lastly we have a series of slider controls which set the upper and lower brightness limits of the screen and printer. The intervening levels of brightness are automatically adjusted as in the spread instruction in *DPaint*. The Gamma slider allows you to boost brightness around the middle of the image colour range without losing definition at the dark and light ends of the spectrum. This adjustment has to be seen to appreciate its capability. While I talk about colour here, grey scales could be substituted if applicable for non colour printers.

Roundup

From the experimenting I did both with a nine pin dot matrix and a Canon Bubble Jet, it was possible to vary the print results considerably. With the nine pin printer I found it was possible to print out an almost transition free grey shade test picture. Of the sixteen grey shades present ten were clearly discernible. The remaining six were dark shades and difficult to separate. With more time, adjustment of the Gamma Control may have improved this.

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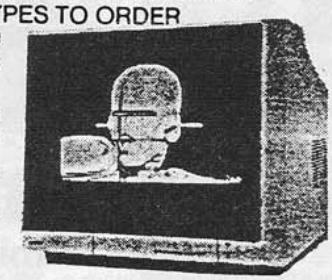

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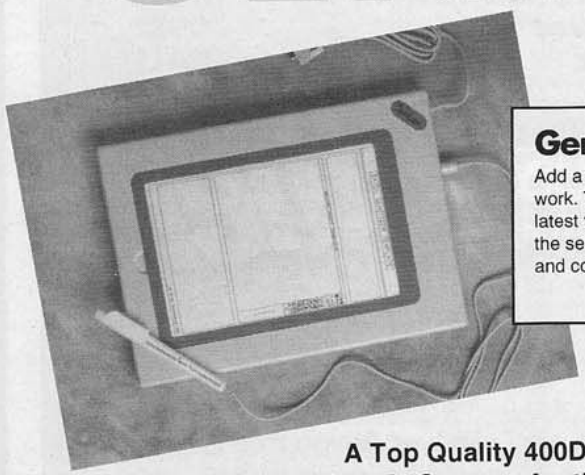

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You Can CanDo

If you've had it with AmigaBASIC, and C is just a way to heavy duty, CanDo offers a slick, fast and very powerful platform for developing applications from games to productivity. Greg Abernethy kicks off a new column looking at CanDo and the many uses to which it can be put.

I have been programming with CanDo for about 18 months, and have found it to be an excellent high-level language. I had been programming in AmigaBASIC for about three years, and had reached a stage where I was looking for something a bit more powerful. I had tinkered with C and Modula2 but had found they required a large amount of effort to gain the best results.

Looking for a language that I could use to design applications quickly, without the tedium of writing large amounts of code, I purchased CanDo V1.02. After seeing a demo, it looked to be exactly what I wanted. I have now upgraded to V1.5 and found it to be a vast improvement on V1.02. I would recommend it highly to anyone who wishes to program on the Amiga but is put off by the complexity of lower level languages.

CanDo uses scripts attached to objects to perform operations in a program. This is called event driven programming. Some of the objects are Buttons, Fields and Documents. By creating an object and then attaching a script to the object you can perform an operation. For example, you may wish to create a button that will play a sound when it is selected. After creating the button you could attach the following script.

PlaySound
df0:Sounds/crash.snd

When the button is selected the sound will be loaded and then played. This example shows the ease with which operations can be performed using CanDo's scripting language.

I am currently writing educational software for the Amiga with Martin Fitzgibbons, computer co-ordinator at Kiama High School. We have found that we can develop applications quickly, and with minimal debugging work. We have completed six projects with a further four currently under development. These include a Teachers Markbook, a First Fleet Database, an educational game and a teachers Test Kit.

I have decided that the best way to demonstrate the capabilities of CanDo is with a series of projects, ranging from an IFF picture viewer, to a simple database for LP's and CD's. The first project will be the Picture viewer. With this project we will create a small window that will reside on the Workbench screen. It will contain a Button and a Field. The button, when selected, will display a file requester asking for the filename of the picture file to load, and the field will be used to display any information or messages for the user. The project will be done in a series of steps to maintain readability.

Starting Out

Firstly, we will create the window on Workbench. Click on the WINDOW button on the Main Panel. Click on DIMENSIONS and set the following; X = 20, Y = 20, Width = 210, Height = 60, 4 Colours. Select OK and then click on OBJECTS. Click on the following OBJECTS; Close Gadget, Window Movement Gadget and Drag Bar Gadget. This will enable the window to be closed, moved around the Workbench screen or moved in front of and behind other windows. Select OK and then click on OPTIONS. Toggle the Screen option until it displays: Try to open the window on Workbench.

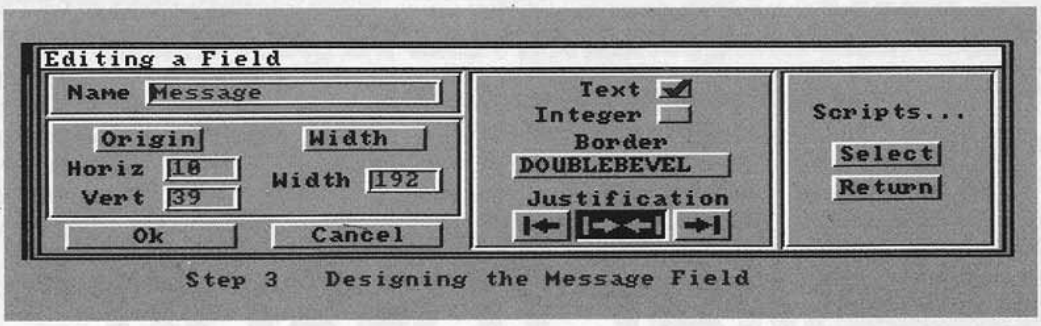
We will set this option to enable the window to be displayed on Workbench. Select OK and then enter IFFViewer as the WINDOW TITLE.

The CLOSEBUTTON script has a default script of Quit which is all that is required when the Close gadget is selected. Select OK to return to the Main Panel.

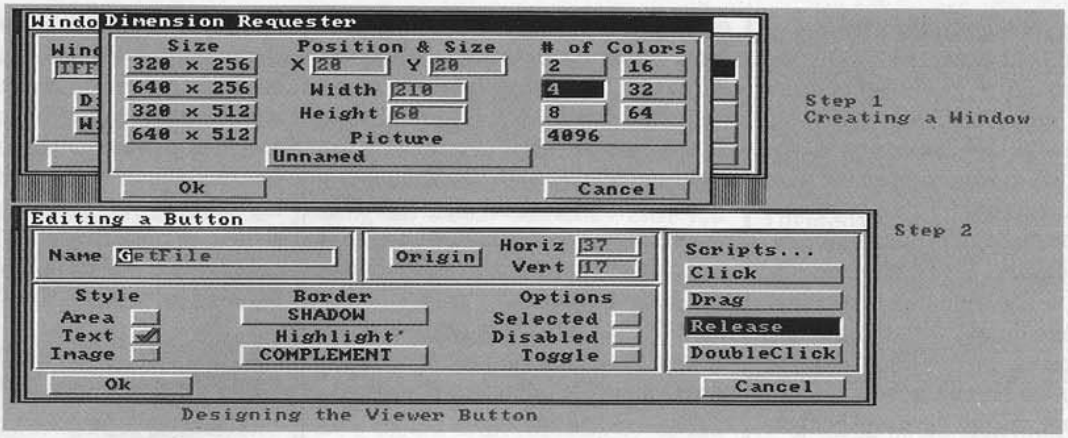
A window should now be seen on the Workbench Screen with a title of IFFViewer and the gadgets we previously selected.

Adding Buttons

Next we will add a button to our window. Click on Add and then click on the Button gadget. Click on OK on the requester and then draw a box in the



Step 3 Designing the Message Field



IFFViewer window. The Button Editing Panel will now appear. Set the Name Field to GetFile. Set Horizontal to 37 and Vertical to 17 on the Button's origin section. Click on Text to set the text for the button. Set the Text field to: View a Picture.

Ensure that there is a space before and after the text, as I have found that this improves the look and readability of Text Buttons. Set the Text Style to OUTLINE. This will show the text as white with a black outline, when using standard Workbench colours. You may wish to experiment with different text styles and colours. Click on OK and then select Shadow from the Border options. I set the foreground colour of the button to orange with a black background. Once again, your personal preferences may differ, so experiment with the styles to see which style you find most suitable.

Next we need to create a script for the button that will be performed when the button is selected. Click on Released as we only want the script performed when the user releases the left mouse button. We are now in the Script Editor for the Released script of the GetFile button. Enter the following text into the Script Editor.

```
Let File = AskForFileName(SYS:,Select Picture to LOAD...,0,0)
If FileOf(File) = ; No picture file selected
        SetText Message,No FILE selected. ; error message
        ExitScript ; leave the script gracefully.
ElseIf FileType(File) <> Picture ; File selected is wrong type
        SetText Message,Not an IFF File. ; error message
        ExitScript ; leave the script gracefully
EndIf GotoCard ShowPic ; everything's OK. Show the picture.
```

This script opens CanDo's File Requester and asks for the user to select aápicture to load. The default directory to be displayed in the File Requester is the main directory of wherever SYS: is located. The user will then be able to change directory to the location of the picture file to view. When the user selects OK from the File Requester, we can check that he has selected a file, and that the file he has selected is in fact a picture file. If there are any problems, we display an appropriate error message in our message field and exit the script to avoid any nasty problems. If there are no problems, we then go to the picture display card we have set up.

Click on OK and then click on OK again to return to the Main Panel.

Adding A Field

Now we will add a field to our window. Click on Add and then click on the Field button. Click on OK on the requester and then draw a box in the IFFViewer window. The Field Editing Panel will now appear. Set the Name Field to Message.

Set Horizontal to 10 ,Vertical to 39, and the width to 192 on the Field's origin section. Click on Text, set the Maximum Characters to 24 and the Initial Text to Ready! or something similar. Click on OK and then set the Justification to Centred, which is the icon of two arrows pointing towards each other.

Select DOUBLEBEVEL as the border selection. Click on OK and return to the Main Panel. Now the window should have a button with text in it, and a field with the message Ready!! displayed in it. All that is required now is to name this Card and set up our picture display Card.

Click on the Card button on the Main Panel. Select Edit to edit Card#1. Simply enter GetFile as the Card's Name and click on OK, as we do not require any Attachment scripts. Next, click on Add to create a new Card. Enter ShowPic as the Card's Name, and then click on AfterAttachment to set up the Card's AfterAttachment script. Enter the following text in the Script Editor;

```
ShowPicture File ; Display the picture the user has selected
ScreenTo FRONT   ; ensure we get the picture displayed on
the Front Screen.
```

This script will allow us to load and display the picture file the user has selected. Any IFF picture file, from low-res to HAM mode, can be displayed automatically using the ShowPicture command. The screen is adjusted according to the dimensions and number of colours of the picture file being loaded. This command is one of CanDo's most powerful commands. Click on OK, OK and then Exit to return to the Main Panel. Select the Window button to set the initial

dimensions for our display window.

Click on Dimensions and set the dimensions to 320 x 256 and 4 colours. This is set merely as a default for our purposes. In the Options section set the Screen option to Always open the window on its own screen. This is important as we will never be able to determine the screen dimensions. Set the Window Border option to The window's borders are invisible. We do not wish to have any borders messing up our display. In the Borders option set all Gadgets to OFF, as we do not wish to have any gadgets attached to our window. Click on OK to return to the Main Panel.

Final Adjustments

All that is required now is to create a button to enable the user to return to the Workbench and the IFFViewer window. Click on Add and then click on the Button button. Click on OK on the requester and draw a box from the top left hand corner of the screen. When the Button Editor window appears, set the following dimensions; Button Name : Done, Border: NONE, Horizontal : 0, Vertical : 0.

Click on Area and set the Width to 13 and the Height to 14. Click on Release in the script section and enter the following text in the Editor;

```
FlushAll          ; Flush the picture file from
memory as we no longer need it
GotoCard GetFile  ; Return to Workbench
and our IFFViewer window.
```

The button will not appear on the screen as it is invisible, but if you click in the top left hand corner, it will appear in COMPLEMENT (inverse) mode and will return you to the first Card. This is to avoid displaying a button on the picture displayed.

Click on OK and return to the Main Panel. Save the Deck under an appropriate name, perhaps IFFViewer. Return to the first Card and test the program to ensure it is working correctly. If there are problems, check the scripts for errors. Usually CanDo will display a helpful error message for you. If all is working correctly, the picture you selected should be displayed on your monitor. Simply click in the top left hand corner to return to Workbench.

Final Notes

This small project displays how quickly applications can be developed using CanDo. I hope that this is a helpful introduction to CanDo. If you have any questions regarding this project or any CanDo topic, please send your questions to me via *The Australian Commodore and Amiga Review*. The next project will be a System Information Window that will reside on the Workbench and can be viewed at any time. ❑

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Education Outlook

by Stan Nirenburg

How often have you bought software only to discover at home that it is not quite suitable for your application or that it does not perform as well as you had expected? I am often faced with this problem whenever I look for educational software for my son. Apart from having to decide what represents good educational software, I must also choose the package that fits my particular requirements.

Visiting a computer store does not always provide the answer. Faced with numerous educational packages on the shelf, purchasing software can prove to be a a less than satisfactory experience. The information provided on the box is not always 100% accurate and gives no indication of the software's playability. Worse still, very few stores allow you to try out programs before buying.

One source of information that I rely on is the pages of computer magazines such as ACAR. Another source is the bookstore. Bookstores are wonderful places where you can spend hours browsing through hundreds of books and magazines on the subject of computers (who needs to go to a public library?). After many hours of hunting, I discovered two books that are aimed at helping parents make a sensible choice when purchasing educational software.

The Parents Guide

The first book I will review is called *The Parent's Guide to Educational Software*, written by Marion Blank and Laura Berlin. Both of the authors are psychologists who work with children and have been involved in bringing children and computers together. It was published by Microsoft Press in 1991 and retails for about $25.

This book reminds me very much of an academic text. Despite this, it is written so that people with little or no computer knowledge can use it. The book concentrates on a narrow definition of education, concentrating on the "four R's" of Reading, Writing, Arithmetic and Reasoning. However, I found it extremely useful in helping me find the right software.

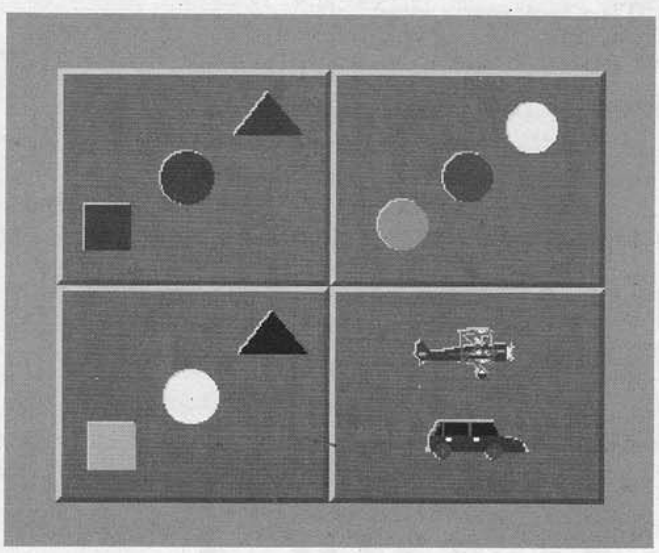
The book comprises two parts. The first few chapters define what the authors consider to be desirable traits in educational software and the criteria that they have used to select "good" educational software. It describes the developmental stages associated with learning the four R's and how software might be implemented to achieve these goals. This information can be useful in understanding which software packages target particular educational areas and their suitability for particular age groups.

I was particularly pleased to see that the authors advocate software that is appealing to children, enticing them to use the computer to ultimately learn new skills. They see good quality graphics, sounds, speech and appealing activities as being important to good quality programs. Another aspect they mention is that software must be non-threatening, particularly to young users, and should provide ample feedback and assistance to help the child.

By far the biggest part of the book is devoted to software reviews. Four "quick selection" tables are provided for easy reference. These list programs under the four learning categories of reading, writing, arithmetic and reasoning. Each table also indicates other skills that are addressed by the software and the age group for which the programs are suitable. I found these tables useful in making a short list of suitable programs.

The software reviews themselves are very comprehensive indeed. The name of the program, its publisher, date of publication and its US price are shown. In addition, the age group catered for by the program is provided. Next, the computer platforms on which the software will work are listed along with any additional hardware that is required or desirable.

This is the area in which the book falls down somewhat - it appears that the authors have heard of IBM, Apple, Macintosh and Commodore 64, but not the Amiga. I overcame this problem to some extent by consulting Australian distributors' catalogues and the shelves of computer shops. Unfortunately, only a small number of software titles have been ported across to the Amiga.



However, the good news is that there is enough good quality software available for the Amiga to fill most people's needs, particularly at the younger age group (toddler to about 7 or 8 years).

Older kids are also catered for, but as with educational software for any computer platform, there is little uniquely Australian software that exactly matches our local curriculum. I hope that this situation will be rectified someday.

continued on page 36

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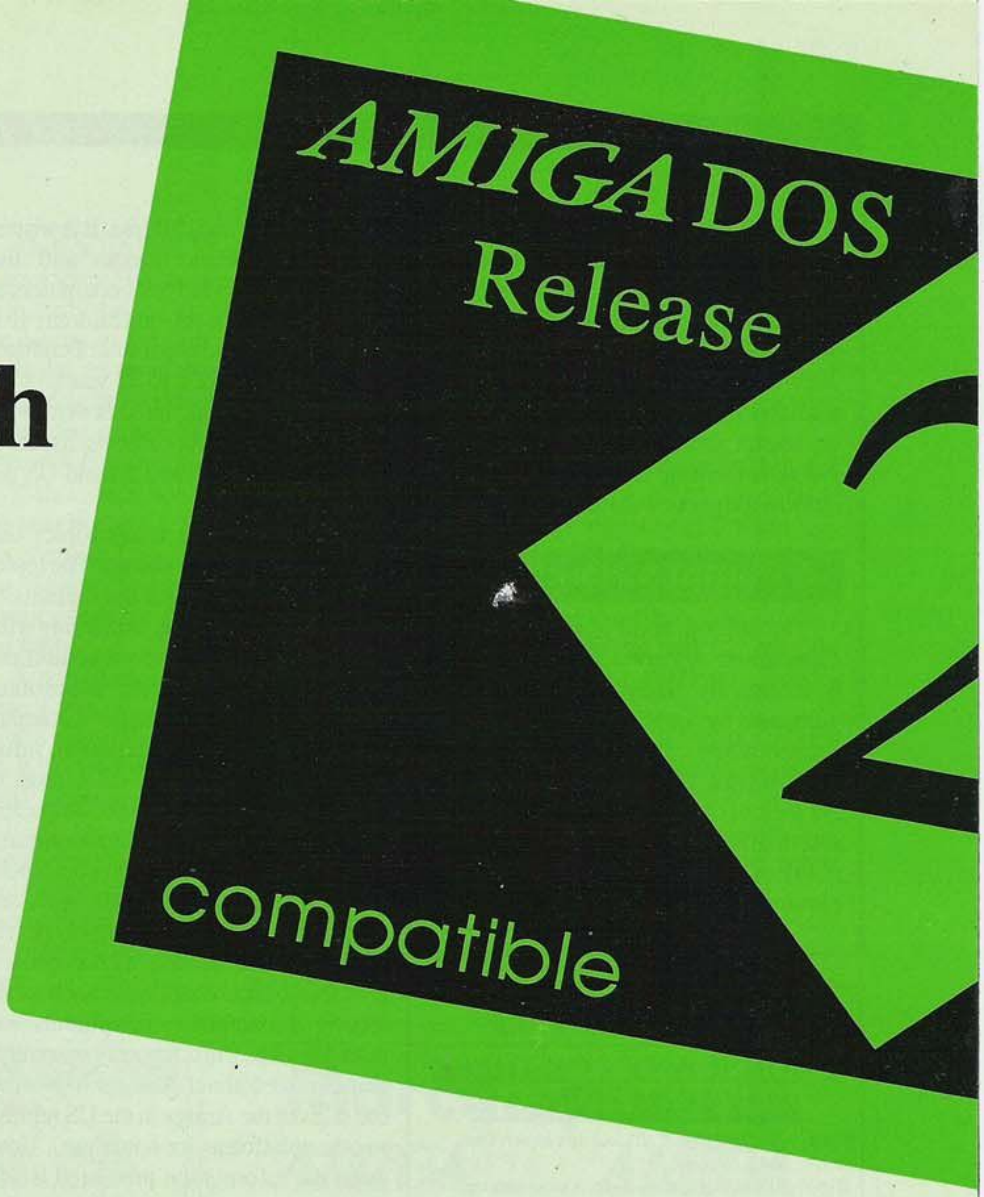

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The review then proceeds to describe what abilities are needed by the user of the program (with special mention of applicability to disabled children), the educational area covered by the software and a description of the activities available in the program. Unfortunately, no screen shots of the game are provided, something that helps me visualize how the game will look when played.

A Parent's Handbook

The second book is called *Kids & Computers: A Parent's Handbook* and is written by Judy Salpeter. It was published by SAMS in 1992 and retails for about $34.

This book takes a completely different tack to the first one and is more of a resource for parents. Its aim is to address many of the issues that might confront parents regarding computers, educational software and children. It is written in a less academic manner and also assumes no knowledge of computers or the learning process of children. It is specifically aimed at parents of children in the age range of 2 to 12 years.

I should point out that it is written for American families because its extensive list of contacts is based around US addresses.

The book covers many topics that might conceivably come up. The topics include a discussion of the benefits of computers in the home, explaining what parents should know about computers, what may be considered educational software, and how to integrate computing into family life. In addition, information is presented on the effects of computers on health (particularly electromagnetic radiation from monitors), the age to start children on computers, children with special needs, girls and computers, and the role schools play.

The second section of the book is devoted to technical issues such as selecting a computer, peripherals and maintenance. Unfortunately, very little is mentioned about Amigas (reflecting the sales of the Amiga in the US relative to other platforms for home use). However, the information presented is of a general nature and is suitable as a reference source for most people.

The third section discusses software selections, sources of software (public domain and commercial products) and how to stay informed about new releases. The final section comprises software reviews of a number of products that were available as at the end of 1991 and considered by the author to be good examples of educational software.

The review section is considerably smaller than that of the first book reviewed. However, it does include some titles for the Amiga. In addition, the reviews are not as dry, and instead concentrate on describing the flavour of the software. In addition, most of the reviews include a screen shot from the package to give the reader some visual idea of what the package is capable of. The review section does not attempt to be a comprehensive listing of what is available, but rather to provide a basis for setting up a good quality software library at home and to give ideas on how to select additional software at a later stage.

The classification of the reviewed software is slightly different from the first book. The subject areas covered include publishing packages, software for preschooler (an area that is well catered for on the Amiga), arithmetic, reading and writing, social studies and science (very much US based unfortunately), miscellaneous topics (reasoning, music, etc.) and games.

Both books address similar needs but in different ways. *The Parent's Guide* concentrates on a narrower definition of education, focusing on the "four Rs", defining children's learning processes and classifying educational software according to how it meets these criteria. The review section is very comprehensive and the software descriptions accurate. The only drawback is that it does not address the Amiga specifically.

A Parent's Handbook, on the other hand, should be viewed as a resource, addressing many of the questions and issues faced by parents with regard to computers and children. The software review section is treated less rigorously than in the first book and it is also considerably shorter. In addition, it does list software that is available for the Amiga.

I find the two books complementary and I would recommend the purchase of both.

This is the first article in what I hope will be a long running series. My intention at this stage is to base the series around software reviews, with occasional diversions into other areas of interest related to the use of computers in the home as another facet of education. I hope the articles are of interest to both parents and younger readers of ACAR.

I am open to suggestion and urge you, the ACAR reader, to write in with comments, questions, suggestions and requests as to what you would like to see in this column. You may write to me care of ACAR or directly to me at PO Box 136, Forest Hill, Victoria, 3131.

Happy computing till next month.

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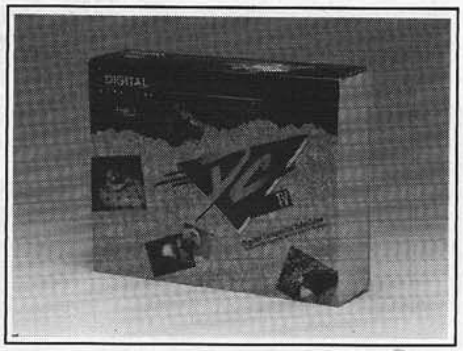

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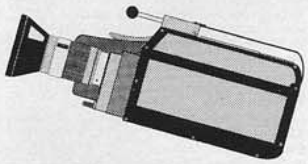

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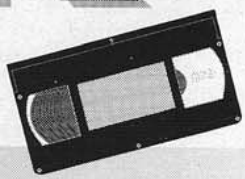

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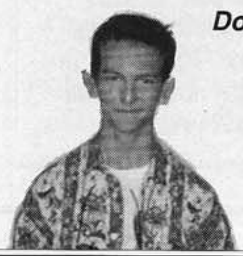

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* *All printers come with free printer cable*

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G'DAYS

Thanks to Chris Dunbar who helped us out at the Collaroy teachers conference. Brickbats to Dick Bridge who pinched all our raffle tickets at the dinner. Hi to Todd Arthur in Cooper Pedy S.A. who is playing underground adventure games, underground.

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For Beginners Andy's Attic

by Andrew Leniart

Howdy folks and welcome back to another trip though the mysterious nooks and crannies of Andy's Attic. This issue we'll be looking at some fab PD software, answering a letter or three and throwing in some miscellaneous hints and tips.

Oldies But Goodies

At time of writing, the popular Fred Fish Public Domain collection has reached the 570 mark. 570 disks cram packed with free and interesting software. By the time this issue goes to print, that figure will be much higher. (*Indeed, we just received up to Fish 590! - Ed.*)

With PD disks being pumped out at this rate, it's easy to get lost in the newer disks and forget about the older ones and some of the gems which they contain. I'm going to talk about a couple of my favorite PD programs that I found of great interest when first starting out on the Amiga.

How many times have you looked at a demo of some sort in sheer amazement and wondered how in the world the programmer did it? I remember sifting through various disks and wishing I could find a program that would allow me to do a demo of my own.

I eventually found not one, but two little beasties, which I'll tell you about now.

Rainbow Writer V1.6

By "Skull & Rainbow Trio", allows you to create your own space, like intro's complete with flying stars in the background, incorporate music into your creations via the use of *SoundTracker music modules* and impress anti Amiga people no end when they see what you have done and how simply you could do it.

A simple matter of starting it up via a CLI, help and instructions on its use are available from within the utility.

The configurability of the writer is a budding demo writer's dream come true. You can select from various different Charsets (fonts) which are built into the writer with which to present your text. Cursor shapes are numerous as is foreground and background colour selection. Text can be presented scrolling every which way you choose and there are various screen wipes available when moving to the next page of text.

Scrolls along the bottom of the screen are catered for and there are numerous other features that can be discovered by playing around with the utility.

I first got a copy of this utility by downloading it from a bulletin board and had hours of fun creating intros with it and uploading them to other BBS' and showing them to friends. With a bit of effort, the finished product is very impressive and provides you with a great deal of self satisfaction once you have mastered using the utility.

On the negative side, I found it a shame that no matter how hard I looked, I could not find a .Doc file for this utility anywhere. Written instructions would help a new user no end as *RainBow Writer* was programmed somewhere overseas and does not use an OZ keymap, so letters are not always what they appear to be. For example, to answer "Y" to a request from the writer, one needs to press "Z". Despite this though, perseverance as always will pay off and you will soon find yourself getting used to the strange keymap that the utility uses.

Spacewriter V1.0

By "Mr Magic of The Prophets AG & Unicorn", is another good little intro writer but without many of the bells and whistles which *RainBow Writer* has.

Quite easy to use, it still produces very good results with a scrolling star background and can incorporate *Sound Tracker* music modules to help give a foot tapping touch to your creation.

Again I know of no doc's written for *SpaceWriter*, however help on use can be obtained from within it by pressing (oddly enough) the help key. A big disadvantage with this writer is that it does not take advantage of expanded memory and will actually crash if your computer has over 512k of memory. This can be easily overcome however by turning fast mem off if you have it or by using a NoFastMem bootblock installed on the disk you are booting up from with *NoVirus* or *ZeroVirus*.

You should be able to get *RainBow Writer* from most PD outlets. If you have trouble, then modem users are welcome to log onto my BBS and download it from there. If you don't own a modem, send a cheque or money order for $8.00 to: Andy's Attic, P.O Box 1335 Hoppers Crossing 3030, with a short note requesting the HCS Intro's Disk and I'll send you a copy of it along with a few other fab utilities which are on the disk.

Alternatively, give Prime Artifax or Megadisc a call (both advertised in this issue) and grab a copy from them. Both have copies of the disk.

Computer Monitors

If you've paid good dollars for a computer monitor, then it makes good sense to take steps to look after that investment. Apart from the usual things of keeping it clean and in a safe spot, you should also consider the tube within the monitor and the harm that can come to it when left on for long periods of time.

The problem of burn-in is more common with the old type green screen monitors used mainly with IBM clone type machines. Burn-in can occur when the monitor is left on with the same display sitting there for a long length of time. What happens is that you end up with an ugly border on the monitor which is next to impossible to get rid of.

While the problem is not so common on most colour monitors, it still pays to take precautions against it. As an old adage says, "better to be safe than sorry". The way to protect your monitor from this is either switch it off when not using it while the computer is on, or use a screen blanker which will blank the screen after a certain amount of inactivity time.

I used to use a neat little utility called *StarBlanker V1.0* coded by Chris Bailey. I liked this program because it was not just a boring screen blanker which made the screen black. It actually replaces whatever is on the screen with a scrolling starfield which looks quite neat.

A little bonus was that it used two different displays at random so you never knew which display you were going to get when you activated it. It is also one of the few which I found that could be activated via an icon from Workbench. Inactivity time delay is fully configurable and clicking on its icon a second time removes the the utility and gives the small amount of memory it uses back to the system.

StarBlanker can be found on Fred Fish disks from the PD outlets I mentioned earlier. Look through the listings for other similar utilities or for an updated version of this one. There are many available and all it takes is a browse through a PD catalogue to get a slice of the action.

Aussie Shareware Authors Look Here!

I try to support the shareware concept as much as I can and had intended to have a follow up piece to the last one I did a while back devoted to the subject printed in this issue. Unfortunately, I lost the article I wrote in a hard drive crash so will have to re-write it, however in the meantime, if you are a shareware author, then the following offer may be of interest you.

I intend to cover various pieces of Public Domain and Shareware software which I consider to be interesting via this column in future issues. Most of the material I see is programmed overseas and I only come across the odd bits and pieces coded by Australian authors.

If you are a PD or ShareWare programmer and feel you have written a useful utility, game or whatever, consider writing in and giving us a bit of a run down on what you have created. If we consider it to be of use to a lot of our readers, I'll try and track a copy of it down and do a short review on it via this column and give it some free publicity.

Better yet, if possible, send a disk with your creation on it to: Andy's Attic P.O. Box 1335 Hoppers Crossing Vic 3030. I can't guarantee I'll cover all software sent in, however as long as you include a SSAE, I will ensure that all disks are returned promptly. Give it some thought.

Letters

I received a letter on disk recently from SA by a chap who is only known to me as Jason. He asked that his disk be returned if possible, however included no SSAE and no return address on the back of the envelope. Please, when you write in for help, be sure to always include a SSAE so that I can return your disk with a random PD program copied onto it for you. Jason, if you have not already, please write back with a return address so that I may return your disk. In any case, here is your letter ...

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enjoy your column and was wondering if you could help me decide on a purchase I plan to make soon. I have an Amiga 500 with 1 meg of ram and an external disk drive and Commodore 1084 color monitor. I am planning on buying a printer and was wondering what type is the best to get.

"The shops that I have been to have confused me. One says that I should get a Thermal printer while another says that I should buy a dot matrix printer. What's the difference between the two? Which would be better for the Amiga 500? Jason."

Andy's Attic: First up, it does not really matter which Amiga you have when you wish to buy a printer. All models can accommodate a printer and the type you get is really only limited to making sure there is an Amiga printer driver available for it. Before you buy your printer, make sure the salesman shows it to you in action on an Amiga. If it works on an Amiga in the shop regardless of which model it is, then it will work on your A500 as long as you are given the appropriate cable for it.

The differences between a dot matrix printer and a thermal printer are huge. Both have their advantages and disadvantages and do their stuff in different ways. Thermal printers such as the Commodore Okimate 20 (also known as the MCS820 model) can print in both color and black and white and produce excellent results.

Using electronic impulses on the ribbon, the results are usually sharp and clear prints. However I can tell you from experience that ribbons for these printers do not come cheap and last only a fraction of the time that a dot matrix printer ribbon can be stretched out to last.

There is one advantage with a thermal printer however and that is the fact that it has the capability to print without a ribbon at all. I got sick of paying $18 plus for ribbon cartridges and went out and bought myself a roll of plain old fax paper. I simply pulled the ribbon cartridge out, fed the fax paper in and started printing. Naturally you still need to use ribbons when you need color prints, however for black and white prints, the fax paper works like a charm. When a good quality paper is needed, it's a simple matter of photo copying the printed fax sheet at the local library.

Dot matrix printers work in a totally different way and require a ribbon at all times. The quality of print obtained from one of these printers depends on how many dots or pins the printer uses for each character. A 24 pin dot matrix printer is capable of producing graphics and print of a very high standard at the expense of doing the print at a slower speed.

Speed is usually determined by selecting either a 'draft' mode for the print, which is fast, or 'letter quality' which is a bit slower. However even in the slower mode, a dot matrix printer will always be faster than a thermal equivalent. The major disadvantage of a dot matrix printer in that it is usually noisier than a thermal model.

While thermal printers require the odd bit of maintenance (particularly cleaning) to keep them working well, dot matrix printers will usually go for ages without needing to be touched. Ribbons also tend to last longer and are cheaper to replace on a dot matrix printer.

To sum up, while I am reasonably happy with my Okimate 20 thermal printer, I now regret not going for something like a 24 pin dot matrix and would recommend that out of the two, the dot matrix would be the one to go for.

Sorting Out ALIAS

Garry Buerckner of Oak Flats in NSW writes:

"Being an avid reader of ACAR I thought that you might be able to answer a few questions to some problems I'm experiencing in the never ending quest in pursuit of understanding the machinations of the Amiga.

"I've owned my Amiga for about a year now and right from the start I was determined to use the computer as a serious machine and not, as a lot of my friends do, a games machine. Don't get me wrong, every now and then I play the occasional game, especially when everything I try to do constructively on the computer fails miserably. So here are my posers.

Alias: Where does this sucker hide? I've searched high and low for the whereabouts of this oblique command and still it eludes my finger tapping investigations. I know it exists, somewhere, because whenever I type the command "Alias 1 cd df1:" it works. When I use the command in a script file, to make a whole heap of aliases to insert in my startup-sequence, I keep getting error messages informing me that alias is an unknown command. Why?

Funny thing is that the script file is executed and works. The alias script file is within the shell-startup file. The errors come up when the computer gets to the second last line. After that I'm always forever closing the startup window to show the WB screen.

ICONS I cannot seem to be able to change my existing disk and/or ram icons to custom made icons. How is this achieved without going insane? I have no dramas when it comes to substituting the other type icons but I'm becoming mad as a gumtree full of galahs trying to convert the disk or ram icons. What is the secret?

Andy's Attic: Okay, let's see what we can do to help you out. First up, your search for the Alias command will go on forever and you will never find it as it is not a "command" in the sense of the word. Alias is a feature built into the Workbench 1.3 Shell. Ie: It's hard coded into the actual shell.

This should also explain the error messages you are getting when using "Alias" in a script file because the Amiga goes off and searches your path trying to find a command by the name of Alias. When it can't find it, it spits the dummy and throws back an error message at you.

The reason it works fine when you type in the exact same line in a shell is because you are in an environment where the command can be executed.

A quick fix to stop having to manually close down your startup-sequence cli all the time would be to remove all alias statements from your startup-sequence and put them into the s:Shell-Startup file where all alias' should live.

The secret to changing disk icons to

your own creations is quite easy. I could tell from your letter that you were on the right track, however you were just looking in the wrong spot. The answer lies in a file which will be in the root directory of any floppy diskette called Disk.Info. The ".info" file that you see on disks has nothing to do with the disk's icon.

Disk.info is the icon file for that disk which Workbench displays. Simply overwrite this icon file with the one that you have selected and then just remove the disk from the drive and replace it again. Workbench will now display your new disk icon. You will notice that the RAM: disk normally does not have one of these files, however it is still possible to change the ram: icon to any disk icon you like by copying the .info file into ram via the startup-sequence.

For example, if you find a particular disk icon you like on another disk and want your ram disk to look like that, then copy the Disk.info file from that disk to somewhere on your boot disk other than the root directory. In our example, we'll assume that we have a copy of it in the boot disks S: directory.

In your startup-sequence somewhere before the LoadWB command, add the following two lines:

Dir Ram:

Copy df0:s/Disk.info to Ram:

That's it.

I'm afraid I can't help with your queries in regards to the programming language NorthC, however I have forwarded a copy of your letter to our trusty editor who may be in a position to help you out. Check the Letters to Editor section over the next few issues for a possible solution. You should by now have received your disk onto which I have copied a PD devoted to the "C" programming language.

The answer may be in there.

ASCII and Music

Don Dixon of Willunga in SA writes:

"Dear Andrew, I am an avid reader of your excellent ACAR magazine and have been for some time. I've found your Tutorial segments on the CLI a great help. Keep up the good work.

I have two requests which I hope you or one of your readers may be able to help me with.

I am retired now and having had an interesting life, have taken to writing a book about it hoping that one day my grand children will be interested in what granpa got up to in his younger days. One of my problems is that I started writing my book on my SX64 a couple of years ago and now have an Amiga 500. Is there a way I can transfer the files from the 64 to the Amiga?

"My other request concerns music. I have a Casio CT-470 keyboard attached to the Amiga via a Midi. Is there any software available to teach piano or keyboard? I saw the Mindscape advertisement on the back cover of the October edition of ACAR and contacted them, but they only sell the

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software with the keyboard. I don't feel inclined to pay out for another keyboard. Hope you can assist me with the above matters. Don Dixon."

Andy's Attic: It is indeed possible to transfer text files between the 64 and the Amiga providing that the file has been saved, or can be saved as a straight ASCII file on your 64. ASCII stands for "American Standard Code for Information Interchange". This is an 8-bit information coding system that assigns a number from 0 - 127 for all numbers, letters etc. Also extended ASCII set from 0 - 256 including many symbols. You do not really need to understand the above. I included it for the sake of completeness, however you do need to know if your file is in ASCII format.

You did not mention which word processor you were using on your portable so it's hard for me to determine whether or not you have that option. Something like *EasyScript* already saves in ASCII, however quite a few of the word processors written for the 64 do not and save in their own format only.

This being the case would cause a problem in the sense that the Amiga would not be able to make any sense out of the text. Having said that, if your text can be saved as ASCII, then it is a simple matter of getting the file from one machine over to the next.

You can achieve this by connecting the machines together via a cable and transferring the file over to the Amiga in much the same way as you transfer a file from a bulletin board over a telephone line.

A quick visit with your portable to a helpful well stocked computer store that supports Commodore machines should have the file on an Amiga diskette for you in a matter of minutes.

In regards to software available to teach piano, I'm afraid I'm personally not aware of any as I am not into the Midi scene myself. Have you checked through the Fish Disks for something that may do what you need? Perhaps one of our readers knows of some software that will do what you need and will write in and tell us. I'll be sure to pass on any info sent in. Can anyone help Don out with a solution?

Fonts Please

Glenys Price of Leopold in VIC writes:

"Dear Andrew, I have been an Amiga owner for about six months. I have owned a C64 for seven years and I find it still to be a terrific computer (especially when combined with GEOS). However I like to use computers to their full potential so I am very keen to learn as much as I can about my Amiga. That is of course when my four children are not playing games on it.

I use *PenPal* wordprocessor, which is excellent, although I would like to be able to use more fonts with it. I have bought a Zuma fonts disk but cannot get

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these fonts to work. I have tried renaming the disk to FONTS and then I tried to Assign the fonts through the CLI but I get a message that says "Can't cancel fonts"

If I just put the fonts disk in DF1: then the computer doesn't read it and I only get Topaz 8 point to use. Can you explain this please?

"Also, can you suggest a few good Public Domain fonts disks to use with *PenPal*?

"On another subject, I backordered copies of ACAR to get all your CLI tutorials but they didn't have a copy of the May 1990 issue which had Part ONE of your tutorial in it. If you have a printout of the tutorial anywhere, would it be possible for you to send it to me?

"Thanks for your column. I have found it interesting although a bit heavy going. I intend to sit down and and work through all the tutorials when I can round them all up. Warm Regards, Glenys Price."

Andy's Attic: I have not seen any Zuma fonts disk, however at a guess I would say that the problem would be in the layout of the disk and the way the fonts are set up in there. Try making a copy of your *PenPal* disk and copy the Zuma fonts over to that disk in the appropriate directories.

If short on space, get rid of some of the gear on the *PenPal* disk that you do not often use. Other than that, you can go ahead and try to set up the Zuma disks in a way which the Amiga can recognize the fonts.

Assume the root directory of the Zuma disk is the actual fonts directory and create appropriate fonts directories for all of the fonts on the disk. Having done that, when you rename the disk to FONTS, the Amiga should then be able to read the fonts contained within it and *PenPal* may then be able to take advantage of them. Public Domain fonts disks are plentiful and for me to recommend some for you is a bit impracticable without knowing the style of fonts that you are after. Grab a copy of Megadisc's PD catalogue and check the listings there to see what's available. Prime Artifax also have a good selection of Fonts compilations so get in touch with them as well.

Sorry you could not get hold of the May 1990 issue of ACAR. The back issues sell like hotcakes so I'm not surprised you missed out. However, by now, you should have received the disk I posted you with a file containing that particular installment with my compliments. Thanks for the kind remarks about the column.

Well, that's about it for this month folks. Hope you got some value out of the info we've presented here for you. Look forward to more of the same next month when we'll dig around some more in the nooks and crannies of Andy's Attic and see what other little mysteries we can expose for you.

Till then ... ❑

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AMOS Column

Part 5

by Wayne Johnson

The most generalised and often asked question since the release of AMOS is "How do I write a game?" So how do we go about answering a question like this? I suppose we start by asking what sort of game do you want to write. In this new series of articles we will be going though the steps of creating a simple vertical SHOOT-EM-UP type game.

Backgrounds

First, we are going to create a simple scrolling background of a grid. Only a tiled background will be used for the sake of keeping things simple. Those of you with a paint program, load up and open a screen 320 x 200 with 32 colours. We will only be using the first few colours for our tile but we need the colours 16 and onwards for our sprites.

Paint a square 32 x 32 pixels and place any design or shape to it that you wish. Pick up the square tile as a brush and paste it at every position to make a grid of tiles. For *Deluxe Paint* owners, go to PAGE SIZE in the PROJECT menu and change the Y value from 256 to 288. Click OK and NO for no stretching. Users of other paint programs consult your manuals on how to extend your screen.

At first, the screen is no different. Press the down cursor key to lift the screen and reveal a blank area of 320 x 32 pixels. Grab a row of tiles as a brush and paste that into the blank area. If you are wondering why we needed the extended row of tiles on our screen, press the up and down cursor keys. The whole screen scrolls within a 32 pixel boundary.

This is the concept for a repeating scrolly grid. Refer back to the January issue on creating a scrolly text if you are still unsure. We intend to scroll our 288 pixel high screen inside a border of only 256 pixels. See fig 1. Save the picture to disk as GRID.pic.

Boot up AMOS and go into direct mode. Type: SCREEN CLOSE 0 and type LOAD FSEL$ (""),0. Select "GRID.pic" and type:

```
SCREEN DISPLAY 0,,,320,256
SPACK 0 TO 6
```

We now have our simple background ready to scroll, safely packed into bank 6. Save this to disk as PACKPIC.abk.

Sprites

Next step is to create the four different sprite images that will be appearing in our game. We will use *Sprite X* for this. Those that still use the old *Sprite Editor*, I encourage you to purchase it from any good PD list or the Australian Amos Club for members.

There is a strict method for defining sprites.

If you design them in any mode and try to display all eight on the screen, you will, in fact, be able to display only four sprites. The reason is because of the mode you designed them in, and the sprites will pair up together to produce four fifteen colour sprites, despite the fact that you seem to only use the three colours required.

Follow this procedure to achieve a true three colour sprite set: Load up *Sptite X* and click on REZ and choose 4. Click on BOB/SPRITE to go into sprite mode from BOB mode. Reduce the X size to 16 to stop sprite pairing. For Image 1, design a ship fighter, Image 2 - an explosion, Image 3 - an enemy alien, Image 4 - a bullet. When finished, save it to disk as SPRITES.abk.

Figure 1

AMAL Routines

Let's go back to EDITOR mode and define an AMAL routine so that our screen scrolls happily under interrupt. We will use the AMAL EDITOR on the Extras disk to define our AMAL strings. Load up the AMAL EDITOR, select LOAD AMAL from the menu and select our sprite bank (this is quite legal and we can load in any type of bank). Select LOAD AMAL again and select PACKPIC.abk to load our background. Click on EE to define an environment. Check the Extras manual if you are unsure how to use it comfortably. I encourage you to learn to use it proficiently before continuing with this tutorial. Type the following environment code:

```
Bob off : Sprite Off : Rainbow Del
Screen 0
channel to screen offset 0,0
channel to sprite 1,0
channel to sprite 2,1
hide
sprite 0,288,200,1
sprite 1,0,0,4
```

Channel 0 will be for our scrolling screen. Channel 1 is for our hero's sprite and channel two is for our bullet.

In our game, all objects will be sprites. Since it is only a simple game, we won't be exceeding eight sprites. The reason we are using

sprites is because their position or Hot Spot is not affected by screen offset scrolling. BOB's, on the other hand, suffer from this badly and need special routines to handle these side effects.

Scroll Routine

Let's define our scroll routine by clicking on 00 and typing the following short routine:

```
A:
Let Y=32;
Move 0,-32,16;
Jump A;
```

This routine Sets the Y offset of the screen to 32 and moves the screen downwards (hence the -32) at a speed of half the distance. Once the movement finishes, the routine jumps to A and resets the screen back to a Y offset 32. This produces a smooth continuous scrolling backdrop; we don't have to worry about writing complex AMOS routines. Save the AMAL to disk as AMAL.abk for safe keeping and run that to check if it is scrolling finely.

Sprite Routines

Click on channel 01 and type in the following routine:

```
A:
L RX=X;
L RY=Y;
If J1&1=0 Jump B;
If Y<60 Jump B;
Let Y=Y-1;
B:
If J1&2=0 Jump C;
If Y>270 Jump C;
Let Y=Y+3;
C:
If J1&4=0 Jump D;
If X<138 Jump D;
Let X=X-2;
D:
If J1&8=0 Jump E;
If X>420 Jump E;
Let X=X+2;
E:
Pause;
Jump A;
```

Putting it simply, at the start, the ship's coordinates are saved into registers RX and RY. This is so we know where to position the bullet in the next channel. The program checks for a direction, if it's not held in on the joystick, it jumps down the program to check for another direction. If the direction is triggered on the joystick, then the program will firstly check to see that you are not moving your ship out of the boundary (if it is, it exits that part to check another direction) and then

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will move the ship by changing either the X value or Y value. Run this to check. Again, save the program.Now we need to define our bullet channel. Click on channel 02 and enter the following:

```
A:
If J1&16=0 Jump A;
L X=RX;
L Y=RY;
Move 0,-200,10;
L X=0;
L Y=0;
P;
Jump A;
```

Very simple; checks if the fire button is NOT pressed and if it isn't, the program will jump back to A to check again. If the fire button is pressed then the bullet will be placed on top of the ship by calling its position that we stored earlier. The bullet then is raced up the screen for a distance of 200 in steps of 10. Afterwards, the bullet is placed out of view of our screen at sprite position 0,0 to wait for the fire button to be pressed again. Save out our final AMAL file for this month and run to check that it all works. Now to put it into AMOS.

NEW the AMAL EDITOR so we can start to write our program. First, go to DIRECT mode and hold the left ALT and F6, and press return to bring up our requester.

Load SPRITES.abk, press F1 to repeat the last function, press return and load AMAL.abk, and finally load in PACKPIC.abk. Now that all our banks are loaded in, we can go back to EDITOR mode and enter the following AMOS code:

```
Hide
Unpack 6 To 0
Sprite 0,288,200,1
Sprite 1,0,0,4
Channel 0 To Screen Offset 0
Channel 1 To Sprite 0
Channel 2 To Sprite 1
Amal 0,0
Amal 1,1
Amal 2,2
Amal On
Do : Loop
```

And that's basically it! First, we hide the mouse pointer to free up sprite 0 for our ship, unpack our background to the screen, position the ship in the lower centre of the screen and the bullet off screen at position 0,0. We defined our channels to our objects and screens, switched the 3 channels to the AMOS channels, and turn on the AMAL system. Finally, AMOS is left twiddling its thumbs while our game currently runs 100% under AMAL. AMAL moves our ship, fires bullets and scrolls a background and AMOS does absolutely nothing.

That's it for this month. Next month we will add attack waves and collisions. Feel free to go ahead and experiment with this yourself and compare it to the routines next issue.

Caring for your Amiga

Part Three - Mouse and Monitor

by Kevan Fitzakerley

In part three of CompuCare, you will learn how to keep your mouse and monitor in top working order as part of your preventive maintenance program.

If you are still using a portable TV as a Monitor you are doing yourself and your Amiga an injustice! While a TV will display the programs you are running, they will never be as clear or as sharp as on a monitor. But whether you are using a TV or a monitor you still need to to keep it clean and in good working order.

The main areas of your TV/monitor that need to be kept clean and free of dust and dirt, are the vents and the viewing screen. As with your Amiga and any piece of hardware you have that have vents, these need plenty of air circulation to avoid heat build-up.You should avoid placing your monitor in a built-in enclosure unless proper ventilation is provided and also keep the screen away from direct sunlight.

Dull Matt

If you compare the screen of a TV to that of a monitor you will notice that the monitor screen has a duller finish than that of the TV - this dull finish is known as a matt finish or anti-glare. When the screen becomes dirty or covered in dust and needs cleaning you should unplug the power cable and wipe the screen with a soft damp cloth.

No Liquor

Never use alcohol, ammonia-based products or aerosol sprays to clean the screen because these products will, if used, eventually wear away the anti-glare finish. Avoid having magnetic devices near the screen as they could damage the colour purity of the picture.

If you intend leaving your computer on and unattended for long periods it would be wise to either turn off the monitor or alternatively install a screen blanker program. If your monitor is left on for a long time displaying the same screen it is possible to burn the screen, in other words the screen will display a faint image of that screen at all times.

Take care when moving or adjusting your monitor's position, that you do not accidentally disconnect the various leads that are attached to the rear of the monitor - if any of these leads

do come loose or disconnected, switch off the power and reconnect the leads in their respective sockets.

If you feel that the inside of your monitor needs a good clean out I suggest that you have it done by a authorised repair agent.

Nurture Your Rodent

There are a number of ways that you can reduce the work load placed upon your hardware rodent, and also make your use of it a little more pleasurable, such as buying a mouse mat. This item is normally recommended when you buy your Amiga, but if you do not have one of these, then I strongly recommend that you obtain one ASAP.

These mats are made from foam. The top surface is smooth and the bottom surface, when placed on your desk or table, acts like an anti-slip mat. In other words the bottom surface keeps the mat in place, while the top surface provides a smooth work area for your mouse.

If left unattended the mouse rollers will get to a stage where they become so clogged up with dirt and dust they will not turn freely. You can prevent this happening by performing simple maintenance at regular periods, and if you are using the mouse constantly then you should carry out this duty on a weekly basis.

Here are the steps you need to take to perform your mouse maintenance program.

Hold the mouse upside down and slide off the small retaining cover and remove the ball, and put these items in a safe place.

Inside the opening you will notice three rollers, which are either steel or plastic, and when you examine them you will see the dirt and dust that has been accumulated on the rollers and also on the tiny axles. You need to remove all of this build up from these parts.

If you place a clean lint-free piece of cloth (a handkerchief would suffice) on your index finger and wipe the surfaces of the rollers, turning the rollers as you are wiping, this will remove most if not all of the dirt. When you are satisfied it is completely clean, gently blow into the opening to remove the dirt. If you have access to a silicone spray, you can spray a light coat on the rollers which will help reduce the amount of dirt build-up and also provide you with a much smoother gliding mouse. Wipe the ball with a soft dust free cloth and replace the ball inside the mouse and secure with the retaining cover.

Keep the mouse cord from becoming kinked or tangled - if the cord is damaged in any way you will experience problems. It is possible to shorten the cord, but unless you are absolutely sure of what you are doing it is best left to a qualified person to carry out this job for you.

Eventually from normal wear and tear you will have to replace or have your mouse repaired. The above procedures will help to reduce problems and also extend the life of your mouse.

PD Update

by Glenn Bussell

To kick off this month's PD column, let's take a look at what must be the shortest demo ever - the one meg basketball animation runs a mere six and a quarter seconds before looping. This ray-traced HAM animation starts with a nicely drawn basketball player ready to throw a goal and then he throws it and that's it! Still, what's there is extremely impressive, if only it ran for a little longer.

An Interesting Scrolly

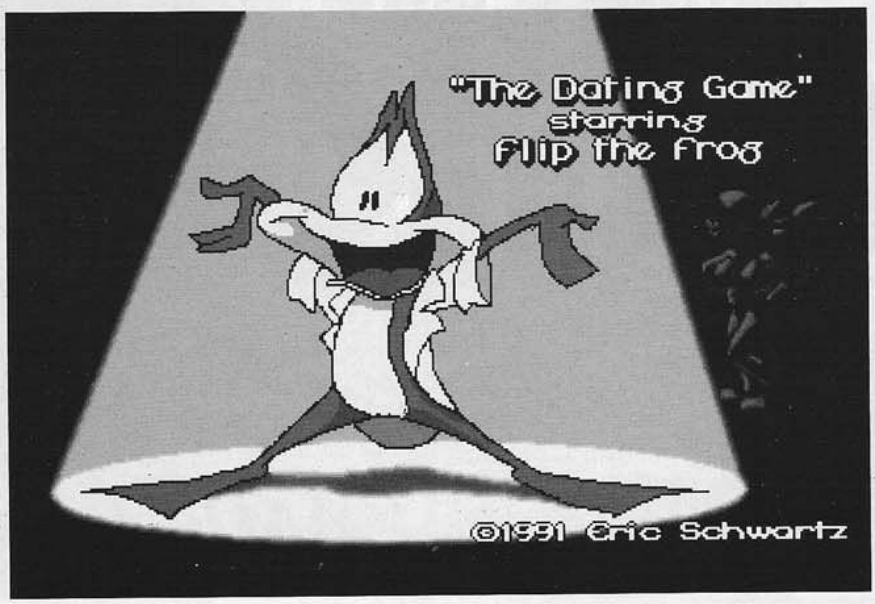
Scrolling messages tend to cop a lot of flak for being about as interesting as watching grass grow, but this month I found a scrolling message that actually grabs the attention and keeps it. This demo is the *Subway Demo* by Rebels. It features a train rolling along with the message graffitied on the side. To back this up we have a good piece of music and a great animated background that features among other things a silhouetted King Kong climbing the empire state building and a set of buildings acting as a graphic equaliser. If only all scrollies were this good.

Mega-Demo

Crionics have released a three part megademo entitled *Crionics Megademo.* The first two parts are just your average vector and scrolly demos which are impressive enough, despite being unoriginal. It is however the third part which makes this demo stand out from thousands of others. They have done away with the usual vectors and scrollies, and replaced them with a far superior cartoon animation.

This animation features a screen height cartoon of Madonna walking along a well drawn street backed by a passable (just) version of her hit Express Yourself. If you want something a bit different from your Megademos this is well worth a look.

Eric Shwartz has come up with yet another animation, this time it's *The Dating Game. The Dating Game* must be Eric's longest demo yet coming in at just under 4 minutes. It stars 30's cartoon star, Flip the Frog, in an attempt to reach his girlfriend's place before 5 o'clock. As you can probably guess things don't exactly run smoothly and in this case Flip's nemesis is a mean and resourceful dog.



Now for the part you've all been dreading. The part where I tell you the depressingly large amount of memory you need to see this demo. This time it's even worse than usual!

You need three meg to see the animation, a second drive and a cup of tea to drink while it loads (the loading time is 10 minutes plus).

Music masters, the Silents, have come up with one of the best music disks yet. The disk, *Blues House*, features 14 atmospheric tunes over two disks, also present is a pretty good version of the old 64 game, *Thrust*, in which the aim is to fly around the one large maze-like level in search of bases which will reward you with a new tune when you land on them. If you can't be bothered with the game you can also choose the songs from a menu.

Demo Of The Month

This month's demo of the month is the 100 most remembered 64 tunes. Destined to bring back rushes of nostalgia and maybe even save your 64 from a dust gathering job in the cupboard, this demo also features the loading screens from 20 or so famous Commodore 64 games. The songs range from classics such as the themes from *Commando, Delta* and *Exploding Fist* to extremely obscure like the tune from *Trollie Wallie.* If you've ever owned or even used a 64 this disk is a must have.

Well, that's it from me for this month, as usual all the demos are available from the 17 bit library. Next month we'll take a break from demos and have a look at the best in PD games.

(Contributions to this section are welcome. Send in your original demos, or demo reviews - including a copy of the demos reviewed - to ACAR, P.O. Box 288, Gladesville 2111.)

The Geos Column

by Arthur Stevens

GEOS for PC's!

As I mentioned last month, Geoworks, Australian representatives, Computermate, recently gave me a review copy of *GEOS/PC Ensemble* (*Geos* for the IBM Compatibles), so this month I thought we might take a look at it, and compare it to the C64 product.

My first problem was the fact that I own a C64 with GeoRAM, not a PC, so I was rather pleased when Dick Smith Electronics jumped in to the rescue and loaned me a Digitor 386SX-20 PC, with high density 5.25" floppy and a 40 Meg hard drive, along with a Star LC24-10 24 pin dot-matrix printer. Thanks Dick Smith Electronics.

To the review - and one major difference between the PC and the C64 version of *Geos* is that the *PC Ensemble* comes in a 12 disk set ready for installation on to the hard drive, along with a three disk set of *Quattro Pro* (the spreadsheet program). Once installed, you're given three options of desktop levels. The beginner level, features application icons like Planner, Notepad, Address Book, Banner, Solitaire and Calculator, a good starting point for someone who's never used a desktop environment before, however a little simplistic for the regular Geos user (even on the 64).

Intermediate level gives more options with a true desktop on-screen, along with all the document icons. Across the top of the screen are graphic buttons to point and click at, Open, Get Info, Move Copy, Duplicate, Rename, Format & Exit to DOS. Along the bottom of the screen, Delete, Open Directory, Close Directory, Create Directory, Documents, an icon for the "A" floppy and a large HELP button.

Advanced is the area I've moved straight into because it gives you all the flexibility you could want from *Geos*, plus all the file management tools immediately available. The opening screen is that of the Geos World, which includes all the main applications, *GeoWrite, GeoDraw, GeoDex, GeoPlanner*, Banner, Notepad, Solitaire and a lovely Geos-version of *Tetris*. Along the bottom of the desktop are a number of icons, the obvious Wastebasket, two that allow you to select between Full Screen display or Overlapping Windows.

A World icon for displaying all applications, a Document icon, which takes you into the Document Sub-Directories, Icons for each drive, "A" floppy, "C" Hard Drive partition or "D" Hard Drive partition.

Getting into *Geos* applications is no problem for those already familiar with the *Geos/64* system.

Double-clicking the icon gets you into *GeoWrite* instantly, and presents you with a different style of screen to that of the 64. With the PC, you can adjust your page style to whatever you want, A4, Quarto, A3, B5 or any number of variations. The page header can be shown there on screen, unlike the 64, where it's only available in Preview mode. Page layout is similar to the 64, in that normal *GeoWrite* v2.1 facilities are there, Left, Right, Centre or Full justification, 1, 1.5 or 2 line spacing and of course you have regular *Geos* style Tabs available. The main difference is that *GeoSpell* is built in, and available simply by accessing the Options menu at the top of the page.

GeoDraw is different to *GeoPaint*, and really is fairly poor if you need the kind of facilities *GeoPaint* offers. There are Circle, Square, Line and Text Tools, as well as a multi-line and area tool, but that's all. Each tool used creates a separate object, and you can't, for example, draw something, then go to a pixel mode and fill in the gaps using a pen style. That simply is not available, so I found *GeoDraw* very limited. (As a matter of fact I had to use *PC Paintbrush+* to create a number of graphics I needed.).

As a Desktop Publisher, GeoDraw is sensational. I created the latest copy of "Radio Raves" (the in-house magazine for Melbourne Radio Station Gold 104 FM) totally using GeoDraw. Text columns can be set and justified as you need them, text headlines can be created, turned and twisted.

You can import graphic charts from *Quattro Pro* or *Lotus 1-2-3*, also graphics from any .PCX, .TIF or .EPS format graphics package. I used the DFI HS-3000 plus Handy scanner to import photographs with mixed success (by mixed I mean some photographs were only slight failures, while others were total failures). You can even produce your *GeoDraw* document using a Colour Printer, and the results I've seen are excellent.

As for the other applications, *GeoPlanner* is similar to *Geos/64 Calendar* (Deskpack Plus), with a few additions. The calendar keeps track of holidays and annual holidays, though I was quick to delete Thanksgiving and log the Melbourne Cup and AFL Grand Final in. It also has an hour-by-hour feature too, in which you can note meetings, lunches with other people's wives etc. and you can pop in an alarm function, to say, give you 15 minutes warning of an up-coming important appointment.

GeoDex is almost identical to the 64 version, just a damned sight quicker due (in no small part) to the speed of the 386SX20 computer. It does have one nice addition though, a Quick Check section to bring up your most regularly used phone numbers, and yes, it's fast.

Quattro-Pro is the spreadsheet program bundled with *Geos/PC*, however it isn't a *Geos*-like environment, so I must say I was a little uncomfortable with it. If you're

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Results versus the A3000 were always a few percent higher or lower, with an average difference of 0.3%.

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familiar with *Lotus 1-2-3* or *Symphony*, you'll have no problem, but with me being a *GeoCalc* freak, well, it just wasn't the same. The big disadvantage of course is that you can't just copy a chunk of *Calc*, exit, go to *GeoWrite* and paste it in. You have to save and exit, go back to *Geos*, open a file called *Quattro-Pro* Viewer and then do your cutting and pasting within that. A bit fiddly and not a happy experience.

The Scrapbook editor is a souped up Photo Manager and works quite nicely saving graphics from *GeoDraw*, and also importing Charts from *Quattro-Pro*, plus .PCX, .TIF & .EPS slides. It's fast and flexible.

GeoBanner is a High Resolution Banner program and allows not only Text, but also importing of graphics and and Borders. Calculator is just that, a fully functioning Calculator with the keys arranged in standard format, or, if you prefer, the Hewlett-Packard style, which I must confess, I don't understand. The display is clear, and the Programmer has done a nice job of emulating crystal clear red L.E.D.'s for the numerals.

There's a Terminal program *GeoComm*, although I haven't had a chance to use it. The documentation shows it able to use all baud rates up to 14,000. Looks like it'll do the job well.

And once you get sick of all the business on your desktop, there's always a nice game of *Solitaire* (though I must admit, I'd prefer *Blackjack* or *Battle Chess*), or if you're into fast thinking, there's always the biggest thing to come out of Russia since the Red Army took over Afghanistan, *Tetris*.

Next month, I'll take you into the PC version of *GeoWrite* in depth, but for the moment it's back to the trusty old C64 and an overview of Geos as it stands.

Geos on the C64

When it first came out, *Geos* was hailed as THE New Operating system for the 64 and it didn't take Commodore long to acknowledge that here indeed was a new system that was user-friendly, certainly far more so than a blue screen with Basic v2.0 and 38,911 basic bytes free. The first version of *GeoWrite* was little more than a notepad system with high resolution fonts, but there hadn't been a great deal of water under the bridge before v2.0 was available with full justification, variable line spacing, and paragraph formatting.

GeoPaint only had a couple of minor upgrades over the years, to version 2.0. *GeoFile* has been upgraded, but is still lacking as a full database, with no in-built reporting system. I can't help thinking that *GeoCalc* with its 1-2-3 like appearance could probably accommodate a database system a little easier, with decent sort facilties - especially on 64's with RAM expanders.

GeoPublish has been upgraded, but I haven't seen the current two disk version available here. It only seems to be the original one disk program, which still has a couple of minor bugs.

With *GeoBasic*, less experienced programmers are now able to make applications, although the worst bug I've found in *GeoBasic* is the system's inability to recognise or deal with FOR..NEXT loops within a compiled finished application, it appears you have to use WHILE..LOOP instead (all my tests show that option works).

For the Machine Code programmer, there's *GeoProgrammer*, giving full access to the innards of the GEOS kernal. There are also plenty of third party programs, many of them from the RUN stable, like *GeoTerm*, a nice easy to use Communications program which supports everything from Dumb modems to full Hayes Compatible systems, with variable baud rates from 300 to 2400. Convert 2.2 is an excellent accessory to use with *GeoTerm*, it enables you to convert *Geos* VLIR files to standard Commodore PRG or SEQ files, upload them to a receiving terminal, at which point Convert 2.2 will convert them back to *Geos* VLIR, ready to use.

GeoOrganizer allows you to quickly and easily arrange the order of files on your *Geos* disks, if you have *Geos* 1.2, 1.3 or 1.5, this is useful. *GeoWrite* File merger is also a handy program to have, if you've ever had to wait while *GeoWrite* updates page 1 to 40, after making a one word correction in Page 1, you know what I mean. With *GeoWrite* merger, you can compose a short file, save it, then compose another file. Fix up any corrections and changes, then simply merge the two together.

As for other non-*Geosworks* products, I'm still waiting to see *Gateway*, the improved desktop system, and should the distributor read this, a review copy would be appreciated. Word is, *Gateway* gives you full use of *Geos*, with 2 drive capability as well as RAMdisk access, at the same time, an improved application switching system, allowing instant access from one application to another, similar to *GeoWizard*, as well as access to RAMlink, or the CMD range of hard drives.

Next month, we'll check out *GeoWrite* on the PC, and compare it with the 64's v2.1 which comes bundled with *Geos* v2.0.

Desktop Publishing

I'm still collecting finished *GeoPublish* documents from readers, let's see how creative your local newsletter or magazine is. Any would-be artists could start working on *Geos* Clip art disks, and let me see a sample of their work. It would be great to be able to release a clip art disk produced by Australians by the end of the year.

Don't forget to get your tips and tricks in to us, and if you have any hassles with *Geos*, drop a line to:

The Geos Column, c/- ACAR, P.O. Box 288, Gladesville NSW 2111

or if you have a Terminal program, along with a modem using 300, 1200 or 2400 baud, you can leave a message in my electronic mail at the TALISMAN BBS, (059) 44 4061 under ARTIE (what else?).

Until next month, you do everything you wish with *Geos*, see ya then.

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One of my main concerns was with getting rid of the white line gap between each head pass. The gap adjustment did work to some extent, but I feel it could have been a finer adjustment. It was always too much or too little, but then I was using a driver for the BJ-130, an earlier model Canon. The new driver may get around this problem.

Unfortunately I was not able to give it the colour test but from what I did see this program has great possibilities providing you have the right driver for your printer.

The manual keeps on referring to *Turbo* being reset proof but after carefully reading through the book several times I am not sure just what this means. I think however that it refers to the use of a button on the Additional Feature screen which makes the *Turbo* Menu resident in a part of the memory which is supposed to be safe from warm resets. It can also be set up to auto load as part of the startup-sequence.

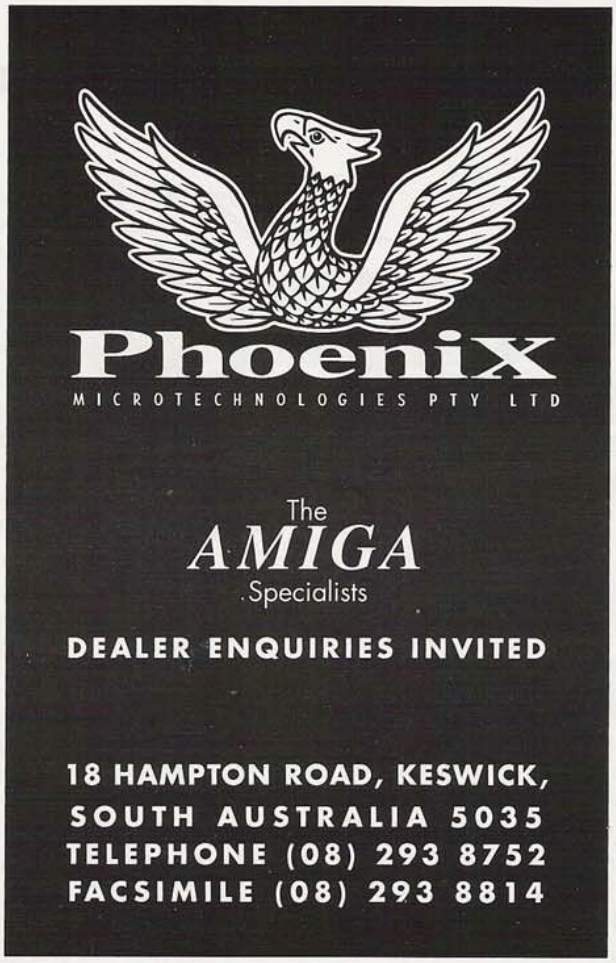
Hot keys are provided for some functions such as recalling the menu for setting adjustments, screen dumps and saving files. While you can automatically install *Turbo* ready to override the normal printer drivers, it can be put on standby when not wanted or shut down altogether.

Conclusions

A good program as long as you have a printer covered by the supplied drivers. Check to make sure your printer is covered before buying. *TurboPrint* can improve the quality of printouts as long as a little effort is put into getting the right settings for your printer. It may require a fair bit of experimenting to get it right.

As for speed, the program rips along even in the Floyd-Steinberg smoothing mode, which is usually notoriously slow. The nine pin Star didn't even bother with multiple passes, it just kept churning out the picture.

The review copy was provided by Steve at GSOFT in South Australia. For more information, telephone or fax (08) 254 2261. Recommended Retail Price is $149. ❑



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The C64 Column

by Owen James

by Owen James

User Group Update

If you're an A.C.T. reader, you should be interested in the Commodore User Group (ACT) Incorporated. Established in 1983, the club offers an extremely large Public Domain software library, a bi-monthly newsletter and regular meetings and demonstrations for members. For membership and other information, contact CUG at PO Box 409, Curtin 2605.

For anyone in or around the Penrith area, the Penrith Commodore User Group might be just what you need. The group meets at 7:30pm on the third Wednesday of each month at the Victoria Street Community Cottage, Victoria St, Werrington (entry from Roebuck St). They produce a monthly newsletter, as well as a range of services such as ribbon re-inking, seminars and workshops, and a large library of Public Domain software. You can contact PCUG by writing to 42 Alpine Circuit, St. Clair NSW 2759, phoning (02) 670 3207.

If you'd like to see your C64/128 club or user group mentioned on these pages, send your details to me care of The ACAR, PO Box 288, Gladesville 2111.

Interview: Demo Writer

This month I thought we'd look at Demonstration programs. No, I don't mean productivity software with the SAVE option cut out. I'm referring to those animations with catchy music and a scrolling message. To find out more, I interviewed 'Slash' (aka Damien Britt) from a group known as The Digital Underground. Here's how it went:

OJ: Can you tell me briefly what it is that you guys do?

DB: What we do is design and code demos and also other things like utilities and our group, 'TDU', also releases a disk magazine. We have about ten guys in the group, each with different jobs, such as coder, graphics, swapper, or the editor of the mag. The coders put together the demos, using machine language, as speed is very necessary. We also swap with other groups, swapping the latest utilities or whatever.

OJ: Why spend so much time coding a demo that will probably be forgotten within a couple of weeks?

DB: We try and make the demos so that they are remembered and not just forgotten. Um, it could be ego related as well, because a lot of the disk magazines produce charts from people voting, and getting Number One is probably what most people aim for. Mainly it is just for fun, and experience I suppose.

OJ: What are your average ages?

DB: It would probably be about 16 or 17, but can range anywhere from 13 to 60. Most of us still go to school, and are still enjoying our youth.

OJ: Do you find it interferes with your social lives?

DB: Not really. You code in your spare time, when you want as there aren't exactly deadlines, though sometimes there is! We just go and enjoy our normal lives and code in spare time. It actually enhances your social life in a way, because when you swap, it is just like having lots of pen pals, and there are usually parties and things where you can meet these other people on the 'scene', as we call it. Also if you are travelling, you know a lot of people and you can go and meet them etc.

OJ: How did you get onto the demo scene?

DB: First up, I was asked by somebody at school, and we formed a small local "lamer" group. However, we slowly improved and got more recognition. Have you ever seen addresses in demos? Well, you write to them and ask to swap and slowly build up from there.

OJ: Do you think demos are as common on other makes of computer? Is it just the popularity of the C64 that has made it so dominant in the demo scene?

DB: Yeah, demos are common on the Amiga, and of course are a lot more advanced and detailed. But the C64 wins outright because yes it is a very popular machine and also, because it is limited, you are always trying to get just that little further with it. Compare the 64 to the Amiga in terms of their size and abilities, and the 64 demos win easily.

OJ: Very true. So, how long does it take to code an average demo?

DB: Well, the time varies from demo to demo of course, depending on the complexity of the code and the graphics etc. But on average to put together a single part, it would take about nine hours ... probably more.

[Note: Most demos consist of a number of parts, like scenes of a movie.]

OJ: I've noticed that some groups have gone further than just coding demos, and actually produce a regular disk magazine. Apart from the graphics and music, they seem to be more like an 'underground' youth magazine than a computer publication. Can you tell us more about them?

DB: The scene disk magazines are put together basically for scene guys. They have things ranging from charts to the latest news. The reason for them being like youth magazines is because, simply, most of us are teenagers.

OJ: Are you guys capable of coding serious applications?

DB: Depends on what you mean by a serious application. We produce utilities as well as demos, things like note writers, graphics and music editors, and many other things. A lot of the time, the stuff you get through the scene is better than commercial software. For example, you can get

FLI, or Flexible Line Interpretation, graphic editors. The special thing about FLI is that you can have a lot more colours per eight by eight area and the graphics produced look a lot better. They do need to be specially displayed. You can't get something like that on the commercial market.

OJ: Can you briefly tell us the processes involved in creating a demo?

DB: Well, firstly the coders should try and make a new amazing routine and put it together. Then the graphics guys will step in and design graphics to help enhance the routine and make it look nice. The demos will be changed, enhanced and totally different by the end.

OJ: Once of the first demos I ever saw was one called *Bone Brain II*. It consisted of a static image, a simple scroll and some music that had been ripped out of a game. This is what most demos of the time seemed to be like. Suddenly I noticed that we started seeing spectacular animation and visual effects including borderless screens and FLI graphics. Even the mandatory scroll was not something to be ignored. Was the transition really so sudden?

DB: No, it wasn't. Demos have slowly progressed from the old days to the new. As new routines and methods are created, the demos improved. I'd say that you just missed a couple of years in demos or *Bone Brain II* was done by a "lame" group and others were done by "elite" groups.

OJ: I notice a lot of vote sheets circulating around the Oz scene requesting votes for everything from the 'Top Five Coders' to the 'Top Five Girlies'. What's the idea behind these?

DB: These vote sheets are for the magazine to put together charts ranging from these and more. The charts are a serious look at what people think of you and your group, but also it is a bit of fun, like with the Top Five Girlies, because we are young and well, I don't know ...

OJ: Do you see any significant changes in the future for demos?

DB: Not really. The 64 is being pushed to the limit at the moment, with ray-tracing vectors, side borders removed, FLI's and other marvelous things. That's probably what they said years ago, and look at the differences! I couldn't possibly predict where demos will go next.

OJ: Any last thoughts or deep and meaningful philosophies on life or anything else?

DB: Yes, well the scene is always looking for newcomers to keep the scene and the 64 alive forever. New talent is always needed, especially in Australia, as the European scene is a lot better as they have had years of experience compared us. They are also all very close, but in Australia we are far away from each other. If people think they are interested, then they should give it a go as it is challenging, fun and fulfilling. It gives you experience in programming and a lot of the scene guys go on to become game coders and doing other things for software houses.

So, there you have it. Everything you wanted to know about demos, but feared being branded a 'lamer' if you asked. One more thing - If you want your demos to have credibility, you'll have to learn to spell phonetically. 'Music' and 'Graphics'

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becomes 'Muzik' and 'Grafix', 'Effects' becomes 'FX', and if you're a genuine die-hard C64er then 'Amiga' becomes 'LAmiga'.

If you'd like to see a modern C64 demo but wouldn't have a clue how to get hold of one, I've made a twin disk set available. Send a cheque/money order (made payable to Owen James) for $12.00 to The C64 Column, PO Box 288, Gladesville 2111. Allow three weeks for delivery.

Mail

The mailbag is once again overflowing this month. If you've written to me and I haven't responded, please be patient. I eventually get to just about everything.

Game Conversions

Daniel Middleton, of Cavendish Vic, writes: "Dear Owen, I am an avid C64 game player and just love to read about the new Amiga games featured in ACAR just hoping that they will be converted to the C64 soon, if ever.

"I would like to know a few things about conversion such as: (i) Is it difficult for programmers? (ii) Does it take long? (iii) Is the conversion very costly?

"I would also like to comment on what Ross Archer said in the January issue. It would be unfair to place a disk on the front of ACAR as this would exclude a group of people. Does he forget that ACAR is read by people in two different formats?"

OJ: Conversion between the various platforms is common, and not just in the world of games. The ease of transition depends on a number of factors. A productivity title written in 'C' is usually much quicker and easier than a game written in assembly. C is what we generally refer to as a 'transportable' language. C source code can be recompiled almost any target system that supports a C compiler with minimum fuss.

For speed, games are usually written in machine code, bypassing the computer's operating system all together. What works on one computer, won't necessarilyon another. Think about converting from an Amiga to a C64. Amigas are 16-bit computers, capable of displaying up to 32 colours on screen (ignoring HAM mode, as this is just too slow for games), with a 68000 family processor and four channel stereo sound. Sacrifices would have to be made to 'downgrade' it to a C64. The best games are always the ones that keep the target computer in mind throughout the development phases. If it's destined for a C64, it should be designed to suit the C64's resources.

Software houses consider the time and expense to convert a game to another platform, and then look at that game's potential in that market. A game like *Tetris* for example was, I believe, one of the all-time best sellers. It lacked complex sound and graphics, which made it a perfect conversion candidate, and was simply very addictive, giving it great potential on almost any platform.

Overseas Magazines

Heath Kirby-Miller writes: "Dear Owen, I am writing to express my views on Ross Archer's letter in the January ACAR. Since there aren't many Australian magazines with C64 coverage (ACAR being the only one that I know of!) we rely on magazines from the UK and USA. Their high price of $6-$10 (or more as in the case of CDU) doesn't justify their content. Even with a tape or disk (which they all claim is free) they're not worth it. The tape is okay but not free for us.

"By the time we get the magazine the information is 2-3 months out of date! The competitions are even out of date!

"So to all Australian C64 owners think of the matter like this: What's the use of overseas magazines with information months old. Even with a tape or disk it's not worth it - sometimes they don't load! Stick with the ACAR and, even though you only get a few pages of information each month, be happy - it's all exclusive. Keep up the good work."

OJ: Heath's comments pretty well sums up the type of feedback I have received to Ross Archer's letter. We mightn't be able to provide forty or fifty pages of C64 content, but at the same time we don't have the high price tag or the long delay before the information reaches you. To those that are concerned about waning support, you should remember that there are other sources of help and information. There are many C64/128 user groups scattered right around Australia, as well as several Bulletin Boards and even a C64 Echo mail conference that could do with some more participation. Just because the amount of published material decreases, doesn't spell the end for the C64. We just need to recapture some of that enthusiasm that has been lost over recent years.

C64 Newsletter

On the subject of continuing support, I have received a letter from Warren Naismith regarding a newsletter idea. Here it is:

"After years of reading about the decline in support for the 64 in local magazines, I have finally decided to test the water, therefore, I am asking all 64/128 readers who have an interest in the future of this great little machine to take some time and read this letter and, even more importantly, think about the questions be-

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ing asked. Your input into this is very important. It could mean the difference between a newsletter that has everything or going back to ACAR, trying to scrounge a few drops of information from Owen's excellent column. This information is needed so that I can do the following:

(a) Ascertain the most desirable format for the publication,

(b) Calculate production costs, and therefore the end cost to you,

(c) Arrange for the appropriate editorial input, ascertained by your indication of your various interests.

"I must stress that if you want a 64/128 specialist publication, albeit an amateur one, you must let me know. Below are the questions I feel are necessary to give me a good database to work from. Feel free to skip any you may feel are invasive.

"(a) Name and address, so that I can let you know any relevant details in the future. Please print clearly.

"(b) Computing interests.

"(c) Other hobbies. Where possible I will be encouraging special interest groups to make use of the magazine.

"(d) Are you interested in having some input into the publication (please say yes!). I am looking for people who like to write, as well as programmers, so if you use a particular program a lot (like GEOS, games etc) let me know.

"(e) Preferred format. This varies quite a lot, but at this stage my personal preference is a newsletter with disk (or perhaps a tape if the demand was high enough). Other options include just the newsletter, just the disk, or perhaps a magazine format (though this would increase costs significantly).

"Even though the inclusion of a disk/tape increases the cost and adds the difficulty of acquiring suitable software, there's a huge amount of Public Domain software to fall back on.

"(f) If you're a programmer, would you like to contribute?

"Okay, get to it NOW. Remember your input is important if your want your own C64 publication. Write to Warren Naismith, 9 Wadeson St, Cobram VIC, 3644."

Plus4 Answers

In reply to R. Alyari's letter regarding Plus4 books in the February issue, Ron Daniels of 1 Oxford Avenue, Victor Harbor, SA 5211, has the following books available for sale: *Plus4 and C16 Programmer's Reference Guide, Commodore C16/Plus4 Companion, Commodore C16 Exposed, 100 Programs For The Commodore 16.*

All books are in excellent (as new) condition and are available for $10.00 each plus postage. If you're interested, contact him at the above address.

I'm told that Parcom stock the Plus4 *Programmer's Guide.*

Which Printer

I've received quite a few letters from readers wanting to know which is the best printer for their particular setup. Largely, it depends on how far the budget will stretch, and whether you want to go for a printer designed for the C64, or a more standard printer with an interface for later upgrading. I've used an MCS810/820 for several years and have been largely happy with it, though it does have a rather severe problem with printheads failing. They're relatively cheap and produce good quality colour and black and white output.

At the moment I actually use an Amstrad FX9600AT fax machine interfaced to an Amiga 2000 for most of my printing work (saves on desk space!). The MPS1250 seem to be fairly reliable printers and the quality appears reasonable. Anyone else have a particular recommendation?

If you're writing to me, print your name and address clearly, and include a fax and telephone number where appropriate. You're also welcome to leave me a message on any one of the several Bulletin Boards I visit or in the C64/128 Echo area.

It looks like I'll have to leave it there this month. I had planned to start a regular look at Public Domain software this month in the column, but there just wasn't the space. So watch out in next month's column for a PD update, with thanks to Brunswick Publications.

Hopefully, Tips and Tricks will also return. GeoPD, The User Software Disk and PD1 are all still available for $6 each. Send a cheque/money order made payable to Owen James to The C64 Column, PO Box 288, Gladesville, 2111.

See you all next month.

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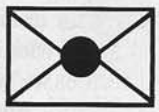

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Game of the Month

RETURN TO EARTH

If you enjoy the idea of traversing the galaxy buying and selling to make a tidy profit and improve your ship, then you'll love Return To Earth. Featuring a point and click interface, combat action, many planets to explore and hopefully you will one day find Earth - the lost centre of civilisation. **$5.50**

NEW

Graphics Compilation 4

FreePaint, Graffitti (HAM support - AMOS Speed) and for structured painting (like Oxxi's DesignWorks) - PED. When you have all your images saved away, PicBase will help you keep track of where they all are! Lots of example images and brushes. **$5.50**

NEW

Genealogy

Two excellent program for keeping track of your ancestors. A-Gene was originally written for the IBM PC, but has been converted to AmigaBasic and considerably improved and compiled for extra speed. It requires a printer and 1Mb of RAM. Family History also requires a printer and was designed specifically for the Amiga and sports a pull-down menu interface and reasonably well designed screens. **$5.50**

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CDTV

by Phil Campbell

Name Change for Amiga CD Drive

The long awaited A-690 Amiga CD-ROM drive has been renamed. That doesn't mean it's arrived - it just means we're waiting for a new set of letters and numbers. Are you ready for this? It's now the A570 drive, pegging the model number neatly below the existing A-590 hard disk unit and perhaps minimising confusion between the two. Any reports on release date? Not yet, but the expected price-point will still bring a smile to Amiga users' faces, and should bring the CD software explosion we've been waiting for.

And a Name Change for UK CDTV

In a bid to polish up the image of the CDTV, Commodore UK have renamed the machine the AMIGA CDTV. Obviously, the ploy to distance the machine from the world of computers hasn't been entirely successful - now it's being promoted as the basis of a user-friendly home computer system. Will this trend be repeated in Australia? Time will tell.

Virgin CD Commitment

Virgin Games have confirmed that they plan to fully support CDTV and the A570 configuration. "We have been developing full Multimedia titles for CDTV for quite some time," says Virgin's New Media Manager Steve Clark. "The titles we're developing feature full CD quality music, sound effects and speech." The good news is that most titles will retail for exactly the same price as their floppy disk equivalents. And why not?

Sherlock Holmes, Consulting Detective

Watch out for the release of an amazing CDTV game that brings Sherlock Holmes to life. Already released on IBM CD-ROM format, the game features quarter screen full motion video segments, and easy to control icon-based gameplay. Produced by ICOM Simulations, the manual of the PC version mentions that the title has also been produced for CDTV - so stay tuned for future developments.

CDTV Feedback

Have you got a CDTV? Or thinking about getting one? Then why not drop us a line and air your views? Write to CDTV Feedback, c/o Phil Campbell, PO Box 23, Maclean NSW 2463.

Heroic Age of Space Flight - NASA - the 25th Year

"A small step for a man ... a giant leap for mankind." Immortal words from Neil Armstrong, the first man on the moon. And now you can see and hear them time after time with the release of a new multimedia CDTV title from Troika Multimedia. Mind you, there's plenty more to see and hear as well. In fact, this title is a real first - it features 90 minutes of full motion video. Yep, Commodore's long awaited CD-XL image compression format is now in full flight. You get real, live video action, complete with a stereo sound track. There's one small catch - the picture only takes up a quarter of the screen, in a small rectangle surrounded by a large black border. And, yes, it's only running at 10 frames per second rather than the standard 30 or so on your normal program on the telly,

so things sometimes look a little jumpy. But other than that, it's fine.

The footage is apparently derived from a documentary movie celebrating NASA's 25th Anniversary a few years back - it's certainly not right up to date, with no footage of the tragic Challenger disaster in 1987. Accompanying text screens are much more current.

The control screen follows the now traditional CDTV format, with information categories which can be selected with the hand held controller.

Choose an area of interest, and the information is displayed, together with a control icon to play back the relevant section of video footage.

So what application is there for a title like this? Why not just buy a copy of the video tape, together with a booklet containing the relevant text information? Good questions, and the sort we need to keep asking if we're not going to be sucked uncritically into the multimedia vortex. Why bother?

One good application would be in the school library. The information on the CD is certainly much more accessible than it would be on videotape, even though the picture quality is inferior. If you're looking for footage of a particular event, you can punch it up in seconds on the CD - on the videotape, you'd be eternally searching with the fast-forward button. The unstructured learning experience provided by the CDTV is also a positive aspect - you'll find yourself browsing for hours.

Phil Campbell's MEGA Entertainment

All the latest news and views from the world of entertainment

Computer Game Video in Production

Sydney's Eastway Communications have just started production of an exciting new Computer Games video magazine. The video will feature "live" footage of games in play, together with "interview-style" reviews.

Sounds promising - watch this space for a full review as soon as the first edition hits the streets!

Due For Release This Month

Watch out for these forthcoming titles from Questor, due for release in the next few weeks: *Team Yankee 2 - Pacific Islands* (Amiga), *Race Drivin'* (Amiga and C-64), *Cool Croc Twins* (Amiga, C-64) and the latest from Microprose, *Atac* (Amiga).

Meanwhile, in a rash of sequelitis, Mindscape are releasing *Paperboy II, California Games II* and *Tennis Cup II,* together with *Harlequin, Mad TV* and *The People* - almost all titles are for the Amiga and Commodore 64.

Amazing Hints Disk Update

Have you got your copy of the ACAR Amiga Hints Disk yet? It's right up to date, and now contains hints and tips for 258 games. In fact, you can't pack it much tighter - the disk is crammed full with 1,222,653 bytes of useful information. As a bonus, the ACAR Hints Disk also includes complete maps for *The Bard's Tale*. The disk autoboots, and includes full text and graphics display software - we've come a long way since version 1.0!

So how do you get a copy? Simple. Send a blank Amiga disk, a stamped, self addressed envelope for return postage, and a cheque or money order for just $5.00 to:

Phil Campbell,
PO Box 23,
Maclean NSW 2463.

News From Our Roving Reporter

Andrew Gormly reports that there are a number of exciting new games in development. Archer Maclean, author of the brilliant *Jimmy White's Whirlwind Snooker,* is currently developing two new games in a similar vein. Both feature a wider number of game options and customisability. Working titles are *Archer Maclean's 3-D Pool* and *Snooker 2.* Grandslam have just released *Die Hard 2 - Die Harder* on the UK market. The game features plenty of action, as well as some mind stretching puzzle segments.

A Lotus Construction Kit is also on the way.

Mindscape - *Captain Planet* - C64 Winners

Have you won a copy of *Captain Planet?* Read on and find out, because Mindscape are giving away five copies to lucky C-64 users. The competition was simple - find the biggest word you can by re-arranging the letters in the title of the game.

First prize goes to:

Daniel Middleton, of Horsham Rd, Cavendish Victoria 3408, with the amazingly obscure word "Pentalatian." Well done!

Then there were literally heaps of entries with the equally obscure "Palatinate", which means "a territory under the control of a Palatin."

The following entrants were drawn from the "Palatinate" pile at random.

Mr R.J. Howe, who lives in PO Box 341, Bondi Beach NSW 2026 (wonder how he fits in all the furniture);

Grant Lugton, of 43 Dunn Ave Forest Hill, Wagga NSW 2651;

G. Segnitz, of 186 Hillier Park, Hillier Rd, Gawler SA, 5118, and

Deb Hardy, of 17 Maria St Tanunda, SA, 5352.

Congratulations, and watch your mailbox - *Captain Planet* will be arriving soon!

Mindscape April Competition

Like to win your very own copy of *Videokid*, Mindscape's latest platform craze? Believe it or not, this game sees you sucked into your VCR to do battle with all sorts of video nasties. I've played it, and it's lots of fun.

There are five copies to give away to Amiga users, and here's what you have to do to win.

Simply tell us the names of your THREE FAVOURITE GAMES OF ALL TIME. Print them on the back of an envelope, with your name and address, and mail it to:

Mindscape Competition,
c/o Phil Campbell
PO Box 23,
Maclean NSW 2463.

Get your entries in as soon as you can - we'll then compile and publish the results. Winners will be chosen at random from entries that match the three most popular titles. Go to it folks!

Entertainment Letters

Send your entertaining entertainment letters to Phil at the Entertainment mailbox, PO Box 23 Maclean NSW 2463. Keep your letters short and to the point.

Stuck in Drakken

Dear Phil, Would anyone have any hints for playing the game *Drakken*; I am stuck right at the beginning. Thanks.

Sam Eyles
Wondai Qld 4606

Ed: *Yes, someone would! Mark Harris, our resident tipster, offers the following advice. First, get orientated. You're in the West part of the prairie, facing east. Remember the sun rises in the east and sets in the west, the moon is always to the south, and the constellations and mountains are situated at the cardinal points. The triangles at crossroads always point North. The initial quest is to speak to Hordtkhen to aquire weapons, armour and the details of your quest. Begin the game by going east from your starting point and into the castle.*

Quizzical Questions

Dear Phil, Just a few questions:

1) Is your Hints and Tips disk for C-64 as well as Amiga?

2) Are CBM making a move to send the C-64 cartridge-only like I've read elsewhere?

3) Can you print some more full-game solutions for us?

4) Why are all Amiga owners so intent on putting down C-64's?

Trent Yarwood
Ocean Shores, NSW

Ed: *Sorry, Trent, the hints disk is for Amiga users only. However, there are C-64 hint disks available elsewhere. Check your back issues from the last few months for details. Commodore are not moving towards a "cartridge only" C-64, although they have released a console C-64 in the UK to a fairly lukewarm reception. This hasn't affected Commodore's long term plans for the C-64. Glad you liked the full game solutions. We'll print more as they come to hand - send them in on disk for instant fame and glory! Finally, most of the Amiga owners I know are really quite nice. They're not exactly "intent" on putting down C-64 owners - they only do it when C-64 owners give them the opportunity. And they should know better, shouldn't they? After all, without the good ol' C-64, the Amiga wouldn't be what it is today!*

Remote Access

Dear Phil, After completing *Mean Streets* which is one of the best games I have played, I would like to know where I can now buy two other games from Access Software. The games are *Crime Wave* and *Echelon*. I live up in the North West of WA and the only place you could get 64 games from doesn't stock them anymore. Please could you help me.

Olga McCormick
Karratha, WA

Ed: *The best thing to do is phone Questor on (02) 662 7944. They'll put you in touch with your nearest stockist.*

Pokeing Fun

Dear Phil, Could you tell me how to use Pokes?

Kerry Adams
Ingham, Qld

Ed: *Easy. Just extend your index finger, aim carefully, and thrust with your arm. Works every time. Eh? Oh, sorry.*

You mean the other sort of POKEs! But they work on a very similar principle. The POKES we sometimes print in our hints and tips generally apply to the C-64. To use them, you need to have some way to stop a game in progress - namely, a reset button or a special cartridge. Reset buttons are inexpensive -

they plug into your disk drive socket, and when pressed "reset" your computer to the title screen as if it's just been turned on. The game you've been playing, however, is still in the computer's memory. Here's the fun part. Using the POKE command you can now change the program code, and make it do just about whatever you want. POKEing simply sticks new values into the computer memory.

Say, for example, you've got only two lives left in Motor Mania, and you'd like a few more. Memory location 8646 stores the number of lives left, so let's change it a little - simply reset, then type POKE 8646,255 followed by the return key. That's done the trick - now all you need to do is restart the game by typing SYS 8000, and you'll find you've got 255 lives.

High Praise

Dear Phil, Ryan Snowden here. Your magazine is the best Australian magazine I've seen in five years. There's just one thing I find very irritating. It's the amount of Amiga reviews, articles, info, etc. there is. I, a proud owner of a C64 want more Commodore. Not just game reviews, but programs that C64 owners can use as utilities. It's not much to ask, is it? I, myself would like an Amiga, and the price is at its lowest ($698 at K-mart - no I am not a K-mart fan). But while I have it, I have to make the best of it.

Ryan Snowden
Perth, WA

Ed: *Phil Campbell here. Your letter is the best Australian letter I've seen in five days. And I'm terribly sorry that you find our Amiga reviews so Irritating. And I agree, while you have your Commodore 64 you have to make the best of it. You'll notice in this issue that we've bumped up our coverage yet again, with a competition offering a heap of C-64 prizes, and a new C-64 Entertainment Update section.*

In Orbit With Obitus

Dear Phil, I am in need of some help with the Amiga game of *Obitus*. After reaching a hidden maze in the Catacombs by using the blue gem, I am unable to kill the unknown warrior at the very end of it. I have used all the fire powers you can pick up, up to 35 arrows and up to 10 daggers but he still will not die. What lies in the maze behind him, and is it really worth killing him?

Robert Allen
Greensborough, Vic

Ed: *Stay tuned, Robert - there's sure to be a reader who can let you know whether your quest is worth all the effort!*

Realm Hint Book

Dear Phil, How can I get hold of a copy of *The Official Adventure's Realm Hint Books: 1 & 2?* I don't think we have any "good" newsagents in Adelaide.

Trevor G. Forbes-Simmons
West Lakes Shores, SA

Ed: *Sorry to hear about the newsagents in Adelaide, Trevor. Check out the advert for the hints book in this issue - you can order direct from ACAR's Randwick office - the full address is listed in the ad, or on the first page of the mag.*

Copyright Copy Wrong?

Dear Phil, I would like to answer one of your readers letters for you but short of breaking copyright laws I feel I should give you the answer and you can follow it through the back issues of ACAR.

Maybe the program that Mark refers to in Just Horsing Around is the one that appeared in the first issue of the Review way back in March 1984, titled "Program a Winner at the Track", by Gareth Powell, which he wrote for *Weekend Australian*. There is a correction for this program in Vol 1 No 4 Jun 84 on page 18. It was also promised in the first instance that an up date would follow but it was never forthcoming.

D.J. Forster
Metford NSW

Ed: *Nice to see we've got some long term readers! Thanks for the tip, D.J. - I can remember Gareth's program appearing back then, though I didn't start writing for ACAR until issue number 2! Mind you, I don't think the program worked all that well, otherwise Gareth would have retired on his winnings long ago!*

Games Update

Welcome to **Interlink Software**'s update column.

The release of **Ultima VI** will please diehard RPG fans immensely. This is by far Origin's biggest and boldest Amiga effort yet. OUT NOW!

Secret Of Monkey Island II has further enhanced Lucasfilm's reputation for producing humourous adventure games with a storyline. Amiga owners should be able to sample the delights of this game later this month.

Sierra have also been very busy recently releasing **Space Quest IV** in March. Computer detectives can investigate **Police Quest III** on its release at the end of this month.

Are you in bad need of a gridiron fix? Are you looking for a challenge after completing TV Sports Football? Look no further than **John Madden US Football**. It looks scrumptious and difficult as well.

Flight Sim fans can try something completely different when 360 Degrees release **Megafortress** this month. Flying a B52 should be a quantum leap over the previous flight efforts.

A release date of May has finally been given for the Amiga version of **Links** golf. PC owners have branded this the best graphical golf game ever. Programmed by the boys behind Leaderboard this one appears to be a certain winner.

What bets for an April release of that epically overdue game **Epic**? Sources within Ocean promised a March release but this seems to be slipping back again with **Epic** now due late April.

Remember - we at ***Interlink*** know what we sell.

Cheers. The Game Gurus

Hall of Fame

Send your authentic high scores to:
Phil Campbell,
PO Box 23,
Maclean NSW 2463.
Please mark clearly whether your scores are for C-64 or Amiga.
And remember:
NO CHEAT MODES ALLOWED!

AMIGA

ACTION FIGHTER 132,530 R. Baker
ALERT 359,700 Robbie Baker
ARKANOID 1,052,610 Steven Walter
AMAZED 130,500 Chris Turnadge
BAAL 134,250 Davo
BATTLE COMMAND 334,200 P. Cain
BATTLE SQUAD 99,999,999 (c) Amos Burbidge
BEYOND ICE PAL. 67,626 (c) Chris Turnadge
BIO CHALLENGE 29,000 A Sanderson
BLOCKOUT 85,281 Stephen Lark
BOMBJACK 382,310 David Dilkes
BUBBLE + 276,850 (c) Chris Toyne
BUBBLE BOB 2,960,980 K Cameron
BUDOKAN 6:08min (c) Mark Sorensen
BUGY BOY 113,260 Powerhouse Nick
CAR-VUP 484,122 Happy Hacker
CHASE HQ 7,426,060 Powrhouse Nick
CONT. CIRCUS 4,815,390 Dolly
CRAZY CRS 93,622,590(c)R Cameron
CRAZY CARS CHALL 3,000,000,000! Michael Summers
CRYSTAL HAMMER 6,787,921(c) Kristy Cameron
CYBERBALL 475,000 David Marsh
DENARIS 53,900 Peter Evans
DIABLO 1,490 Timothy Johnson
DRAGON NINJA 246,400 R Matthews
DOUBLE DRAG 962,355 R Cameron
DOUBLE DRAGON II 187,830(c) Damien Carsburg
EDD THE DUCK 5,820 A Gormly
ELIMINATOR 246,570 Greg Munro
EMERALD MINE Lv 23 (d) T Johnson
FLOOD 6,455 Embah Beaton
GEE BEE AIR RALLY 308,726 R Irwin
GIANA SISTERS 69,372 R Cameron
GODS 3,957,622 (c) R. Pitt
GOLDEN AXE 70.3(c) Kevin Mills
HYBRIS 2,345,355 Graham WilsonI
K+ 1,039,200(c) Powerhouse Nick
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IMPOSSIBLE MISSION II 67,900(c) David Dilkes
INDIANA JONES L.C. (c) P NicolI
INDIANAPOLIS 500 38.17sec/ 235.78mph Kevin Newman
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KARATE KID II 54,000 M Summers
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LEATHERNECK 86,500 S Crosland
LIVE AND LET DIE 96,520 M Beaton
MAJOR MOTION 50,658 O Webster
MENACE 996,481 Kamikaze Andy
MIDNIGHT RESISTANCE 302,550 Oops! Lost your name!
MINDWALKER 306,214 P Schumacher
MOUSETRAP 71,977 Davo Rich
NARC 180,800 Damien Carsburg
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NITRO 261,000 (c) Damien Carsburg
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OPERATION THUNDERBOLT 53,000 Andrew Gormly
OPERATION WOLF 355,680 G Wilson
OUTRUN 26,331,122(c) B Moen
OFFSHORE WARIOR 626,345 J Booth
PACMANIA 3,250,140(c)A Burbidge
PINBALL MAGIC 332,390 T Chilcott
PINBALL WIZARD 3,893,570 S Hose
PIONEER PLAGUE 35,412 K Sooby
PLUTOS 299,000 Davo
POPULOUS 347,990 M Summers
PORTS OF CALL $3,654,944,000 Status 1033 Troy Clarke
POW 612,865 David Thompson
RAINBOW ISLANDS 9,999,999 (c) Timothy Johnson
RAMPAGE 212,912 Graham Wilson
RICK DNGS II 68,450 S Southurst
ROBOCOP 375,520 Michael Summers
ROTOX 183,050(c) Faye Doherty
SIDEWINDER 904,350 S Elsley-Eades
SILKWORM (Heli) 9,963,360 (c) Robert Cameron
SILKWRM Jeep 2,369,571 K Cameron
SKWEEK 3,375,400 Faye Doherty
SPACE ACE 22,140 Neville Clarke
SPACE HRRIR 210,855,250 Maverick
SPEEDBALL 17,650 Amos Burbidge
STARWRS 5,722,822 C. Mingos wv 33
STRIDER 175,350 Neil Young
SUPER CARS 17 races Maverick
SPER HANG-ON 25,042,850 D Worthy
SPER OFF-ROAD $350,000 A Gormly
SPER WNDR-BOY 87,190 J Stubbings
SWIV (HELI) 1,758,820(c) S Southhurst
SWIV (JEEP) 1,788,100 S McKinlay
SWORD OF SODAN 403,500 S Begley
TEEN.M.N.TURTLES 546,600(c)James Leeken
TEST DRIVE 131,076(c) J Noglet
TEST DRIVE 2 659,992 M Summers
TETRIS 35,920 Michael Summers
TETRIX Level 232 Stephen Lark
THE RUNNING MAN 123,500 D Rucci
THNDERBLADE 2,034,040 De Moose
THUNDERCATS 522,300 S Southurst
TOWER OF BABEL 25,934 (c)S Lark
TURBO OUTRUN 100,260,819 Matthew Mantle
TURRICAN 1,735,100 (c) A Jenkin
TURRICAN II 2,779,100 (c) Cameron "Link" Rose
TV-SPORTS BASKETBALL 176-60 David McKinney
TV-SPORTS FOOTBALL 189-0 David McKinney
TWINWORLD 24,640 Carol Love
TYPHOON 54,255 Owen Webster
VIRUS 19,801 Scott Southurst
WHIRLIGIG 28,210 Nathan Allen
WINGS 432 kills Robert Irwin
WINGS OF DEATH 56,670 R Irwin
WONDER BOY 381,186,042(c) K Cameron
XENON II 1,107,280(c) Mark Porta
ZOOM 67,051 Steve Jones

COMMODORE 64

ALLEY CAT 1,101,150 Simon Mitchell
ALTERED BEAST 312,400 R Zanker
AP.KANOID 822,200 The Joker
BATMAN 473,230 John Nunes
BATMAN-THE MOVIE 1,087,080 Michael Bradley
BANGKOK KNIGHTS 39,600 J Smith
BOMB JACK 521,820 Adam Wade
BUBBLE BOBBLE 6,963,930 (c) David Gavrilovic
BUGGY BOY(c) 153,000 Adam Wade
CABAL 175,600 The Joker
CHASE HQ 11,366,900(c)Happy Hacker
CHASE HQ II 29,100 (C) Adam Wade
CREATURES 10,123 A Malinowski
DAVID'S MID MAGIC 669,150 The Joker
DOUBLE DRGN 35,820 (c) A Prasad
DOUBLE DRGN II 255,190 N van Heeswyk
DRGN BREED 496,870 Happy Hacker
FAST BREAK 136 to 9 Chris Byrne
GHOSTS AND GOBLINS 325,600 Adam Wade
GHOULS AND GHOSTS 558,110 (c) Adam Wade
GIANA SISTERS 287,100(c) A Wade
GRYZOR 211,200 Giulian Aslett
H. MARADONA Level M N. van Heeswyk
HAWKEYE 207,650 Adam Wade
IKARI WARRIORS 308,300 J Aldridge
INT. KARATE 139,300 Paul Millward
LAST NINJA II 21m30s (c) D Carter
MIDNIGHT RESISTANCE 28,540 (c) Dennis Pike
NEMESIS 1,633,200 Adam Wade
OPERATION THUNDERBOLT 78,600 Adam Annen
OPERATION WOLF 776,350 W Diaz
OUTRUN 16,952,780(c) Adam Wade
PARADROID 103,080 Chris Nilsson
PAPERBOY 103,100(c) John Nunes
PIRATES 143/100 D Steward
POWERDRIFT 872,940(c) A Annen
QUE-DEX 639 Chris Byrne
R-TYPE 1,890,210 Atul Prasad
RAINBOW ISLANDS 7,653,241 Adam Malinowski
RAMPAGE 180,000 Adam Wade
RICK DANGEROUS 66,280 A Annen
ROBOCOP 237,170(c) Adam Wade
ROLLING THUNDER 417,280 A Wade
SALAMANDER 235,300 P Millward
SHINOBI 664,372(c) Winston Diaz
SLKWRM (Heli) 965,200 (c) A Blanch
SLKWRM (Jeep) 244,500 (c) A Blanch
SKATE OR DIE Freestyle 22,095 The Joker
STREET FIGHTER(c) 168,900 A Wade
SUPER CYCLE 223,040 A Gormly
TARGET RENEGADE 330,450 C. Byrne (clocked)
TEST DRIVE 36,144(c) John Nunes
TEST DRIVE II 249,543 (c) A Batroc
TETRIS 35,335 (459 lines) A Annen
THE TRAIN 9,500(c) Adam Annen
THNDERBLADE 1,734,040 T Morrison
THUNDERCATS 269,500 J Wright
T.M.N TURTLES 1292 Adam Annen
TRAZ 54,560 Dave and Sue Upton
TURRICAN 1,239,040 A Malinowski
UNTOUCHABLES 70,230 S Watford
WIZBALL 999,999 (c) G. Beaven
WONDERBOY 560,320 Happy Hacker

Amy Spencer - you didn't tell me what game you scored 987,100 in!

Scores followed by (c) indicate that the game has been completed.

C-64 Entertainment Update

Hello and welcome to another thrilling installment of Update, keeping you up to date with the C64!

This month we look at a number of so-called Amiga only games, and examine the possibility of interlace mode on the C64!

Your Move, Creep!

Ocean have been turning out licence after licence since *Batman*, their first biggie in '89. Unfortunately, however, many of these games have been droll and boring with the same platform/puzzle gameplay every time. But this is set to change with the release of *Robocop III* (actually released before the movie!) Digital Image Design created a 3D Detroit for *Robocop* to walk around in for Ocean's 3rd robo-game, but what will the C64 game be like? Well, after the release of *Battle Command* on cartridge for the 64 anything's possible.

Jeroen Tel, formerly of the legendary Maniacs of Noise, is working on the sound for the game, but reportedly has had a falling out with the company. After not being paid for his hard work, Jeroen gave the music to demo team Blackmail for use in their astounding demo Dutch Breeze!

Cutie Death!

Psygnosis are renowned for their many stunning Amiga releases, the indisputed best being their sadistic cutie smash hit, *Lemmings*. Now, after a false alarm a few months ago when someone said C64 instead of IBM, the technical wizards believe that they can conquer the impossible and release it on the 64! After working with 8-bit consoles of late, they have come up with a few tricks that will allow conversion of this game that pushed even the Amiga to its limits! This is one to watch out for folks!

American Loyalty

American companies, not known for their loyalty to the C64, have been dropping from the market like flies over the past year. Accolade, the latest to give up the fight have just released their last 64 game *Cycles*. Best known for their well presented *Test Drive* series, Accolade haven't been very active over the past few years anyway.

Au Revoir Accolade, and good luck with the PC's.

Mega Twins

Mega Twins, another hack 'n' slash in the same vein as *Ghosts 'n' Goblins*, has been converted from the coin-ops by US Gold. Admittedly a slightly cute version of *Ghosts*, but *Ghosts* all the same. We can only hope that it turns out to be better than the disappointing sequel to *Ghosts*.

Super Cliche

Every year someone releases a game, whether it be in the home or in the arcades, that is merely a souped up version of an older idea. These are usually fiendishly addictive and soon become best sellers. *Space Invaders '91* was one of those games, and appeared in the arcades in (you-guessed it) 1991. This year sees it converted to the Commie by Domark. Unsuprisingly they've decided to drop the '91 as it's not actually 1991 anymore, is it? Nope, so it's been renamed *Super Space Invaders* (Predictable Names Inc.). The old *Space Invaders* arcade re-incarnated with gorgeous 16 colour backgrounds, marvellous sound and cows. A must for anyone who likes to remember the good ol' days of computing (not me, I was only four!).

Interlaced C64?

Yep, now it's time for the techy part of the column as the wise Slarterer explains new tricks on the Commie. Interlaced graphics, flickery as they may be, are a resolution that many C64 graphics freaks lust after. But sadly, interlace is not possible on the 64. Or is it?

Interlaced mode is merely a software trick on the C64, no custom chips are needed. It doubles your Y resolution to 400 pixels! Interlace works by creating two 'fields' from a base 'frame'. The first is made up of the odd lines (1st, 3rd, 5th and so on) and the other is made of the even ones. These 'fields' are then shown consecutively every 50th of a second - first odd, then even. At this speed the brain perceives them as being 'interlaced'.

European demo teams have been doing this since as early as 1989! No graphics packages have been written for interlace mode as yet - in fact no graphics package has been released for about five years, but if enough readers write to me about it I might write one.

April Fools

Amazing as it may be, nothing on this page is an April Fools joke! I was going to put one in, maybe a Virtuality adaptor for the C64, but in my infinite wisdom decided that it might get me fired. So, rest assured that everything on this page is true and unlike certain other (dead) UK magazines we will not print misleading news.

Well, the time has come once again to say goodbye to everyone out there in readerland, but don't forget to send your tips/news to me at this address:-Damian Caynes, 4 O'Connor Dr, Bray Park, NSW 2484.

MICHAEL SPITERI'S

Adventurer's Realm

It's 2 am, sweat is beginning to form on your forehead, you are getting tired, but your determination is getting stronger. You are playing the latest adventure game, and you are not going to go to bed until you complete it!!

A familiar scenario, no doubt. However, if you do manage to get to sleep before you complete the game, rest assured there is help available to you when you wake up the following morning. If you are stuck in an adventure game, or you can help out in one, or you would like to gasbag about one, then the address to write to is: Adventurers Realm 12 Bridle Place, Pakenham, Vic 3810.

Role-playing game problems are handled by Kamikaze Andy in his Dungeon. You can write to him for help, but not for hint sheets. Andy has just returned from the USA with hot news from the CES Show in Las Vegas. Drop him a line at: The Realm's Dungeon, P.O.Box 315, Maddington, WA 6109.

Whoever you write to, you must enclose a stamped addressed envelope.

Free Hint Sheets

Realm's hint sheets contain just the right information to get you moving. There is a huge range to choose from, for just the cost of a stamped addressed envelope. Many apologies to those who requested hint sheets during December and January, but the Realm ran dry of most of the hint sheets, and were somewhat delayed during printing. Just select up to four hint sheets from the list below, and send your request to: Free Hint Sheets, 12 Bridle Place, Pakenham, Vic 3810.

Hint sheets are mainly put together from hints and tips sent in by Realmers. Keep them coming in, and more hint sheets will appear!!

Pool of Radiance, Maniac Mansion, Zak McKracken, Indy, Zork 1, Zork 2, Zork 3, Bards Tale I, Bards Tale II, Bards Tale III, Guild of Thieves, Jinxter, Pawn, Fish, Uninvited, Deja Vu, Hampstead, Hitchhikers Guide, Faery Tale, Borrowed Time, Dracula, NeverEnding Story Pt1, Dracula Pt2, Hobbit, plus Clever Contacts Complete Listing.

Computer Adventure Games - Hints & Tips The Second Official Adventurers Realm Hint Book

Now available at a newsagent near you is the second Realm hint book. It features detailed and cryptic hints for over 25 adventure and roleplaying games.

Games featured include *Kings Quest V, Space Quest IV, Conquests of Camelot, Sorcerers Get All the Girls, Bards Tale* series, *Codename: Iceman, Pool of Radiance*, plus much more.

As a bonus, heaps of mapping pages have also been included to assist you in your next quest.

The first *Official Adventurers Realm Hint Book* is still available via mail order. To obtain your copy, ring Darrien on (02)398 5111. Only $9.00 for hints and tips for over 40 adventure games.

Top 10 Adventure/Strategy Games

1. Leisure Suit Larry V
2. Home Alone
3. Might & Magic III
4. Civilisation
5. Police Quest III
6. Elvira
7. Silent Service II
8. Willy Beamish
9. Sim Ant
10. Kings Quest V

(Top 10 kindly produced by Pacific Microlab - Fountain Gate Store (VIC), from December/January sales figures of Amiga and PC games).

Adventurer's Realm Chit Chat

Scott Le Brun of 56 Brentwood Drive, Wantirna, Vic 3152, writes ... "I have been programming in Basic for about the last ten years and as a keen adventure player, I have written a few text based adventures. Last year I purchased a copy of AMOS and have begun converting my adventure games to the Amiga. Well, when I say converted I mean totally rewritten using the fantastic features only available using AMOS.

"I am in the need of some ideas, maps, IFF pics, problems, scenarios and such to create further adventure games. I would like you to throw this open to the general adventure game playing public to send in some ideas to me. I think that adventure game players are the ones who could come up with some great ideas for adventure games. If I use their ideas, I will give them credit for it in my future games.

"I am trying to put together all of the Public Domain adventure games that I come across into a PD adventure library."

MS: Great idea Scott! I must add that if you send Scott your ideas, and a blank disk, he will give you a copy of his first offering, *Castle Greystone*. This magazine is a strong supporter of AMOS produced software, and you'll find regular articles on how to utilise its power. If any readers know of any PD adventure games, send them to Scott at his address, and he can get his library rolling.

Nigel Cayzer from Grafton in NSW wrote a little note to the Realm advising Tibor Stojanovski (Sept ACAR), and other adventurers, that *Bards Tale I, II* and *III* are available from his local computer store at around $50 each. Thanks Nigel!

Robin Haberschusz of 218 Antill St in Hackett, ACT 2602, is looking for *Stationfall* (Infocom classic) for the Amiga, PC, or Apple II+. He would be willing to buy it or can offer in exchange *Zork Zero* (Amiga), *Lurking Horror* (PC), *Spellcasting 101/201* (PC).

Robin is also looking for the new Infocom titles *Leather Goddesses II* and *Circuits Edge*. Infocom's address might also be handy to him.

MS: *Circuits Edge* has been available in Australia for many months. Infocom/Activision have since relocated to France! The address is not known ... can anyone help?

Joshua (PO Box 343, Windsor, NSW 2756) has searched high and low for another Infocom classic *Trinity* for a Commodore 128D. If anyone out there can assist Joshua, please drop him a line ... urgently!!

Great news for C64 adventurers! Scott Julian, manager of Entertainment Software, 21 Lawson Crescent, Taree, NSW 2430, has signed an agreement with River Software (UK) to release their full range of text adventures for the C64. Six adventure packs are available covering over 15 games. The games have been reviewed by ZZAP magazine, and have received ratings of between 70 and 80 percent! Available now!

Martin McLaren sends news of *Eye of the Beholder II*. Featuring great graphics and sound, this sequel is set in forests, temples, catacombs and towers. The graphics are fully animated featuring movie style sequences. The PC version has been available now for a few months, however the 1 meg Amiga version should be available soon. Thanks for the news, Martin!

Finally, many thanks to Stuart George for the *Corruption* hint sheet, and Peter Georges for sending in the solution to *Monkey Island*.

Realm's Clever Contacts

The Clever Contacts are a huge network of volunteer helpers who are willing to offer their assistance in many games. A list is available from the Realm.

A very big thank you to all the Clever Contacts who are doing a fantastic job. Please enclose a stamped addressed envelope when writing to a contact, and enclose sufficient funds for any photocopying required.

Update ... Martin McLaren actually lives at 39 Jones Crescent, Rosanna, Vic 3084 (sorry, Martin). He can offer help in *Bards Tale II,III, Pool of Radiance, Police Quest II, Monkey Island,* and *Eye of the Beholder.*

Wade McGregor and Greg Eames of 9 Kentworthy Place, Mount Pleasant, Ballarat, Vic 3550 have formed a group by the name of AMIGA DUO. They can help in *Treasure Island Dizzy, Indy, Maniac Mansion, Zak McKracken, Monkey Island, Snoopy and Peanuts, Space Ace, Dragons Lair, Dragons Lair - Time Warp, Lemming I & II, Targhan,* and *Three Stooges.*

Another new Clever Contact is Heath Kirby Miller of RMD 221, Sunraysia Hwy, Stuart Hill, Vic 3478. He can help in *Runaway, Escape, Castle Adventure, Sorcerers Castle Adventure, Rigels Revenge, City of Atlantis, Castle Master, Time of Lore, Lords of Chaos, Bloodwych Maps, Bards Tale II* (some maps). Also parts of *Cranmore Diamond Caper, Astrodus Affair, Kron, Larry III, Damocles, Operation Stealth,* plus much much more. Heath can also offer help in many arcade (arrghhh!) games. Heath has set a reasonable charge of 50c for solutions, and he requires a large stamped addressed envelope.

I'm going to stop listing all the games Stuart George, of 66 Sharon Rd, Springvale, Vic 3171 can help in because his list just gets bigger and bigger! Stuart has help for many PC and Amiga adventure games.

Aaron Upcroft of 24 Ryan Street, Balgownie, NSW 2519 has joined the band of merry contacts and can offer help with *Zork III, Deadline, Tass Times, Lurking Horror, Fish, Maniac Mansion, Zak McKracken, The Hobbit,* and *Not A Penny More Penny Less.*

Problems, Problems & more Problems or the Troubled Adventurers Dept.

Peter Gillespie of Carnegie in Vic, is currently stuck in Tony Crowthers latest masterpiece, *Knightmare*.

Peter seems to be having problems getting into the main dungeon at the start of the game.

Vincent Barbara and Stephen Johansen are another pair of dudes stuck in *The Jetsons*. In fact, any particular hints and tips in completing this game will do!

Regular Realmer David Lear is still stuck deep in the *Astrodus Affair*. He cannot work out how to get into the Stabilisation Chamber to stabilise the engine. Are there any *Astrodus* Adventurers out there able to help David?

Michael Bathols of Narrogin in WA is playing the once hot Realm game *Nine Princes in Amber*. He was having difficulty finding Brand. A quick call from Mark Harris offered the following advice: To contact Brand, tell the truth in Deidres Chamber (entered from the Royal Library). Stab the serpent in the eye, then stab the guard!

Samuel Boyes of Somerville in Victoria is stuck in *Phantasie 3*. He needs to get to the Castle of Dark. Well, according to Mark Harris (again!), you can get to the Castle of Dark by teleporting from the Castle of Light. You'll need the Key of Dark, though.

Monkey Island has been troubling many adventurers recently, Chris Turnadge of Morphett Vale, SA, Martyn Cole, Andrew Smithers, and Catain LeChuck, to name a few. Well to also of those troubled adventurers in *Monkey Island* I, among these pages are enough hints to keep you all busy.

Stuart George is used to getting stuck in a barrel load of games at any one time, and this month is no exception. In *Ultima III*, where can he find the Mark of the Snake? In *Buckaroo Banzai*, where can he get hold of some Bauxite? (Mike: try pulling the line on the ledge!). Where is the hollow tree in *Sorceror of Claymorgue Castle*? How do you get the Thing out of the tar pit in *Fantastic Four?* What is the combo of the safe in *Mystery Island*? (Stuart, check out the second hint book for hints on *Codename Iceman*).

Andy Blazer of Chisholm in ACT is still stuck in *It Came From the Desert*, even after he received Peter Georges hints. Andy wants to know how to get to see the crystal ball lady, and how to escape from the hospital. Andy asks if the situation map is required before entering the M1 mine. How do you destroy the ants' nests during the battle? Do you have to find the Queen ant in part I?

Help, Help & more Help or the Smart Adventurers Dept.

Mathew Brady should try opening the First magic door before trying to open the shop, in *Kings Quest II*, writes Stuart George from Springvale in VIC.

George Aranda writes with help for Allan Miles who was stuck in *Conquests of Camelot*. There is no way of killing the cobras, and this task is not required for completing the game. To get through the desert, go east from the poisonous water with the camel skeleton and then go north. Go to the building and drink water.

Ian Myers was having difficulty back in January in *Legend of the Sword*.

Peter Georges comes to the rescue with the following hints: Try waking a treetop monster rather than killing him. Push the chest before opening it. Drop and break a bottle before getting caught. Use your feet to manipulate the broken glass to cut your bonds.

Monkey Island Hints and Tips(extract from the second Adventurers Realm hint book). Search the kitchen after the cook leaves to obtain some very important items. Need some money? Watch the shopkeeper open the safe! Tackle the pirates until you qualify to face the Sword Master. Stan is the man to see about a ship. It pays to visit the circus, but only after you have been to the kitchen. Bad breath can be fixed using something from the store. Trade the repellent for some cake if the file is what you need. If leaving the ship is a problem, then maybe some rope and gunpowder in the cannon is the solution.

For more hints for *Monkey Island*, plus many other games, get your copy.

The Dungeon by Kamikaze Andy

Through the modern marvels of satellite technology and Aussie Post, this month's Dungeon is coming to you live from Las Vegas, USA, site of the Winter Consumer Electronics Show (CES).

Amiga RPGers and adventurers have lots to celebrate, because a whole truckload of releases were displayed and promised by various software companies. Let's not waste another moment then: on with the show!

SSI leads the pack with four new RPGs, and the first to be released sometime this month is *Eye Of The Beholder II: Legend of Darkmoon.* EOB2 spans four disks and promises numerous enhancements over the original product, including a cinematic introduction and ending, outdoor environments to explore, a new range of smarter and nastier beasts to battle, and special animated effects.

Also due for immediate release is *Buck Rogers II: Matrix Cubed*, which allows you to explore a much larger Solar System (including Jupiter), twice as many foes, increased levels and skills to attain, and a plot that has your group of adventurers searching for the missing scientists who can build the Matrix Device, a powerful machine that can change any substance into pure energy, and the last hope for a desperate Earth!

Next month sees the release of *Tales Of Magic: Prophecy Of The Shadow,* the first in a new series of role playing games from SSI. The land of Auric is under threat from the Shadow Lord, and it is your task to prevent this ancient prophecy from coming true. In order to do so, you'll need the help of the "ancient magician", who will help you discover the gold you need to cast magic spells. *Prophecy* features some amazing digitized video footage as part of its storytelling devices, and will employ 32 colours onscreen. All of SSI's games will require 1 Meg to run, and a hard disk is recommended.

The Dark Queen Of Krynn is the next in the DragonLance series of AD&D RPGs by SSI, and it promises to be the most involving (as well as the last!) in the series of Krynn games. Your comrades have been transported to the realm of Taladas for the final confrontation with the Dark Queen herself, and most of the combat will take place in an underwater environment! Featuring digitized sound, improved graphics, character advancement up to the 40th level, and lots of treasures to behold, this latest installment will provide some relief to hard core AD&D gamers.

Come September and SSI will unleash *Treasures Of The Savage Frontier*, the sequel to its (rather unsatisfactory) *Gateway To The Savage Frontier.* This time, design team Beyond Software has cleaned up the interface, implemented 32 colour visuals, and placed your party in another difficult mission. With the Savage Frontier on the brink of war, only you can make this world seem right (with sincere apologies to the Platters there!) by recovering the lost treasure of the ancients. As usual, this AD&D license will allow you to transfer party members from *Gateway* across. Other new features include weather, which will affect combat, and more NPC interaction (including a romance!).

And that's not all! By the end of the year, SSI will reveal a few more surprizes in its lineup, including *DarkSun* (based on the AD&D modules of the same name), yet another new (currently unnamed) series of RPGs (this time based on science fiction scenarios), and if that wasn't enough, a new AD&D fantasy RPG line set in the Forgotten Realms, using 2nd Edition rules as well as a brand new interface that maintains a similar perspective throughout the game.

And yes, plans have already been drawn up for *Eye Of The Beholder III,* due sometime in early 1993!

With all that Amiga support from SSI, we go to the other extreme and Origin, which demoed the final version of *Ultima VI* during CES. Lord British himself was there, and wasn't too confident that *Ultima VII* would make it onto the Amiga platform. He felt quite certain that *Wing Commander II* and *Strike Commander* could not be sustained by the limitations of the basic Amiga 500 (the main market of which WC2 or *Strike Commander* would make some sort of profit).

Ultima Underworlds, the 3D dungeon game designed by Paul Neurath (who also did *Space Rogue*) might have a chance of being translated, depending on the sales of *Ultima VI.* For those of you who also happen to have a PC, you might be interested to know that Lord British is working full time on *Ultima VIII* (which will not be set in Britannia) as well as a game that is described as a cross between *Wing Commander* and *Ultima*, called *Bounty Hunter.* Chris Roberts (designer of the *Wing Commander* series) is also beavering away at *Wing Commander III* (which will resolve the problem of the Kilrathi once and for all), and will start on a medieval "virtual reality" game shortly after.

Lucasfilm had demonstrations of the Amiga *Secret of Monkey Island II* on

show, and the 32 colour graphics and new iMUSE sound system makes this game a must buy. *Monkey Island II* is filled with the same crazy humour, insane puzzles, and weird characters that populated the first game, as well as the nasty villain LeChuck.

The company's other big release, *Indy And The Fate Of Atlantis*, has been held back for another two months to implement some new music and sounds with iMUSE, so Amiga adventurers will have to be satisfied with *Monkey Island II* for the time being.

Stay tuned for more show news next month!

Adventure New Releases

Vengeance of Excalibur is the hot sequel to *Spirit of Excalibur*, by Virgin/ Mastertronic Software. The game itself plays similarly to its predecessor. In this edition, you take charge of developing four knights as they travel to Bayonne in France. King Constantine (Arthur's successor) has been turned to stone, and the court sorceress has been abducted. Things are not looking too good in this kingdom.

Sierra have grown to the point where they now produce a regular magazine! If you'd like one, write to Sierra at P.O.Box 485, Coarsegold, CA 9361.

Strategy games players should get quite excited by the release of *Romance of the Three Kingdoms II*, the wargame to end all wargames. This game features six scenarios, and up to twelve players may participate. The game is set in 2nd Century China, and we have another kingdom that is not looking too good. The Later Han Dynasty is on its last legs, and it's up to you to play a mad warlord with a goal to unify the country by controlling all 41 provinces. Heavy stuff!

Realm Review: Conquests of Longbow: The Legend of Robin Hood

From Sierra comes this latest game to join their range of classic titles. *Conquest of Longbow* is the second game in the Conquest series (remember *Conquests of Camelot*?), and quite an effort from designer Christy Marx.

In this game you take the role of the gallant Robin Hood, who, with the help of his merry men and Maid Marion, has the difficult task of rescuing the good King Richard who has been kidnapped by evil soldiers disguised as monks. Along the way Robin has to rescue poor beggars from the grasp of the Sheriff of Sherbrooke, and slowly build up his band of men to form an army.

All this is depicted in glorious colour and sound. The game uses the simple Sierra point'n'click interface that has been used to death in *Kings Quest V, Space Quest IV*, and *Larry V*. A small number of icons are available to perform the basic functions such as looking, walking, talking, fighting, taking, and manipulating items. The only time you need to touch the keyboard is when you are saving your game! Although this method makes the game more user friendly, it leaves a little less for the your imagination to ponder upon, since you are limited in the things you can do, and have definitely no input into what is said by your character when communicating with other characters in the game.

A picture of your surroundings is depicted in living colour with a great attention to detail. A very Kevin Costner looking Robin Hood stands in the middle of the screen waiting for your action. Point anywhere using the walk icon, and Robin will happily prance there!

The game also features a number of arcade sequences (which can be turned off). These are mostly duels with bad blokes, either using a bow'n'arrow or a staff. There is also an ancient board game that cannot be skipped. Titled the Nine Men's Morris Game, a board is included in the package with detailed instructions for you to practise on.

A map that automatically updates itself the more you progress is also part of the game. You can travel to any spot on the map with just a click of the mouse button. The game environment can also be personalised to suit your needs.

The game itself is very challenging and very well laid out as far as problems and encounters are concerned. The first couple of days Robin doesn't do much - just enough time to familiarise yourself with the format of the adventure. Then the story starts to unfold with more problems and complications for Robin and his very funny band of merry men to tackle. Tough decisions need to be made,

with the right advice! Yes, there is a maze, but it's not a very hard one!

An awful lot of research went into this game, with an extensive bibliography included at the back of the manual. Sierra games have always been a team effort, with the list of credits for Robin Hood being like that of a movie (over 40 people involved in its development!)

Conquests of Longbow is a challenging game, and a perfect introduction to adventurers not yet familiar with Sierra's new game styles. Arcade players and strategists should also enjoy it, as it has a lot to offer in these areas. A great soundtrack and special effects, along with concise documentation, makes *Conquests of Longbow: The Legend of Robin Hood*, one the of the best Robin Hood computer games to be released yet (and there are a few to choose from!).

For Amiga and PC. Produced by Sierra On-Line Inc. Distributed by Ozisoft (02) 313 6444. RRP $79.95.

Mark Harris finds out what it means to have "a hard day's Knight" as he checks out a sometimes gruesome tale of days gone bye.

"So much fun you'll die," said the message on the box. And it wasn't far wrong. Well, maybe I didn't die, but I sure got some mean cramps in my joystick arm.

How would you classify a game like *Moonstone*? It's a hack and slash, arcade, role playing adventure - a bit of everything, and a familiar style if you have played *Times of Lore* and *Bad Blood*.

To complete your quest you will have to assume the arms and armour of a knight. Your task is to explore all the lands that surround you to find the four keys which will give you access into the Valley of the Gods. Easier said than done!

You'll need to get your joystick out of hibernation and do a few wrist exercises before playing. Your wrist will get plenty of work as you hack and slash your way through the variety of baddies, including Troggs, Ratmen, Mudmen, Dragons, Baloks, Trolls, Black Knights and Guardians. Their bodies literally stack up around your feet as you try and complete your quest.

The initial loading sequence is impressive but unfortunately can't be escaped so every time you load this game you are forced to watch a 2-3 minute opening sequence. For lovers of gore this game has got plenty to offer. It even comes with a warning on the box, which you should heed if you find the idea of sliced off heads and blood spurting neck stumps disturbing. However, the action is cartoonish, and when the first head pops off in a sword fight you might even find yourself suppressing a chuckle.

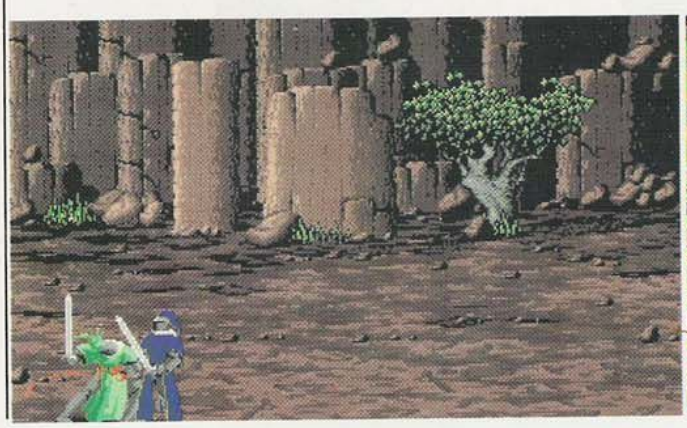
Graphically the game has been written for the Amiga, which always delights me. Animation is smooth, and the characters and backgrounds are done well.

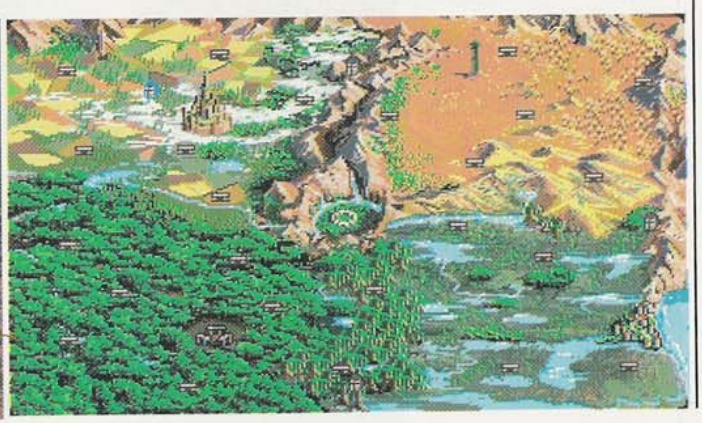
If you only have a single disk drive, you'll experience a great deal of disk swapping - even with an extra disk drive difficulties occur due to a poor manual and the lack of a reference card. The manual is very sparse - it gives limited loading instructions and a short story as to the object of the game. More details would have been good, as this game shows promise and the quality of the graphics is superb. Further, you can't save your game position on disk - a disaster with such a large scale game.

I'm a role playing fan by nature, but I've found *Moonstone* is a good diversion when I need some rest and recreation from monster slaying, puzzle solving and inventory management. Mind you, after two or three hours of hacking and slashing my way through the baddies I had to quit as I was getting R.S.I. of the wrist. But even with its shortcomings, I found *Moonstone* a welcome diversion from the trials and tribulations of a veteran role-player. Put this game on your short list if you found *Barbarian 2* and the like enjoyable.

Distributed by Mindscape (02) 899 2277. RRP Amiga - $79.95.

RATINGS	
Graphics	80%
Sound	70%
Value	70%
Gameplay/Manual	60%
Overall	70%





Champions

Juris Graney sweats it out in training for the latest Sport-Sim compilation from Electronic Arts. Check out what he's got to say, then win yourself a copy in our special competition

Champions is a sports compilation, featuring *Manchester United Soccer, World Championship Boxing Manager* and *Jahangir Khan World Championship Squash.*

Manchester United is undoubtedly the most famous football club in the world. The game puts you in charge of the football side, either as one of the team members, or as the manager. The program boasts "Real Time Digitising" (whatever that means) and all the rules in the game of football. You have penalties,throw-ins corners, free kicks and referees and linesmen.

Verdict: *Manchester United* is a brilliant soccer game. The graphics are excellent and the sound is electrifying. The only real thing I didn't like about this game is the amount of set-up time before you get to play the game. Otherwise this is the best soccer game around.

Now to one of my favourite sports - squash. *Jahangir Khan Squash* brings the the world's number one squash player to the computer. The game features two stand alone simulations, Club Level, which allows the player to compete in Squash Club Competitons, and World Championship Level, which takes you to the top.

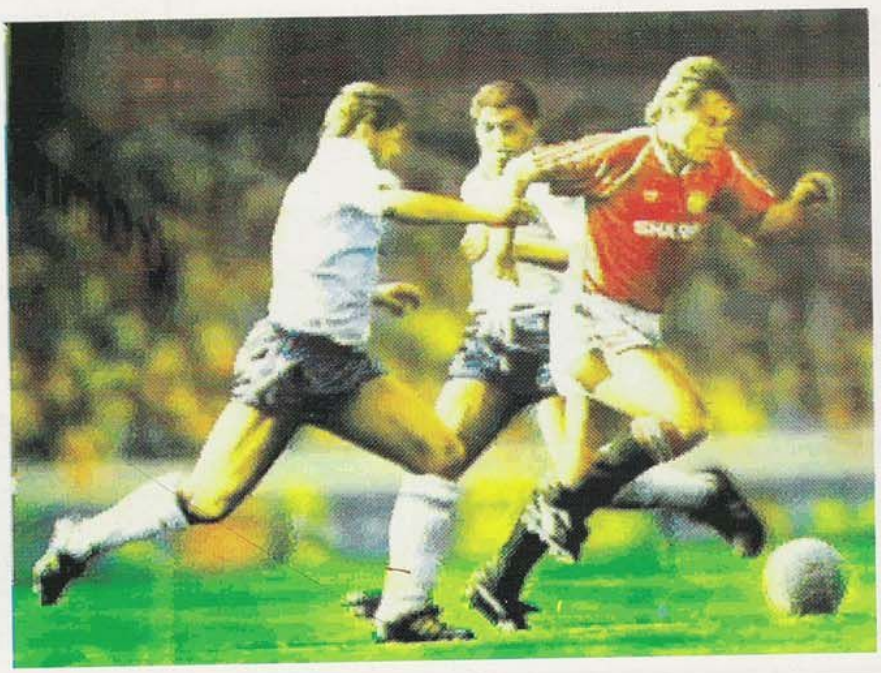
Things such as ball speed and match length can be varied to suit your style of play. Championships level simulates all the excitement and tension of the 32 seed World Championship Knockout competiton. You can play one-on-one, two player mode or head to head against the computer.

Verdict: This game is very hard. The action is thick and fast, and the sweat will pour off you after you have finshed a hard rally. The graphics are good and the sound is okay. The game is very addictive and I would say that is a brilliant recreation of the actual sport.

World Championship Boxing Manager puts you in control of up to five boxers. You must use all your skills as Manager/Promoter against the computer's artificial intelligence, which controls 17 managers who together have 100 boxers under contract.

A warning - the expectations of your boxers are high, so you'll need to use all your negotiation skills to secure bouts against rated boxers, which will increase the world ranking of your fighters on the road to becoming champions of the world.

Verdict: *World Championship Boxing Manager* is a classy game. The graphics are neat and tidy, the animations are a bit jerky but the sound is good. This game is very addictive and will keep you



going for months on end.

Overall the *Champions* compilation is a good one. It has enough variation to keep it from being boredom city. All of the simulations are fun to play, and addictive. *Jahangir Khan Squash* is my personal favourite, though there's something for every taste - so even if you don't win one of the twenty five copies in our Champions competition this month, make sure you check it out!

Available from Electronic Arts (075) 911 388. RRP C-64 - $39.95, Amiga - $59.95.

RATINGS:	
Graphics:	80%
Sound:	60%
Lastability:	87%
Addictiveness:	90%
Overall:	86%

Electronic Arts April Competition
Huge Champions Giveaway - $1200 worth of prizes!

Here's the biggest competition in the history of ACAR! To celebrate this year's Olympic Games, Electronic Arts are running a huge giveaway. There are 25 copies of the excellent CHAMPIONS sporting competition up for grabs - 10 copies of the Amiga version, and 15 for the Commodore 64.

Champions includes *Jahangir Khan World Championship Squash, Manchester United Soccer,* and *World Championship Boxing Manager.*

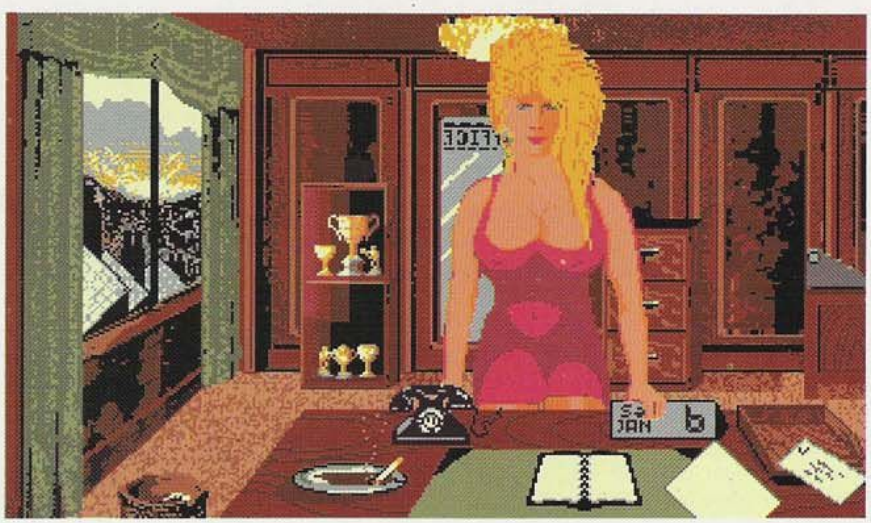
Here's what you have to do to enter. Simply read the review of *Champions*, and answer these questions:

1. What is Juris' verdict on Manchester United?
2. What is Jahangir Khan's current world rating?
3. What two levels can you play in the Squash simulation?
4. What is the total number of boxers under contract in *World Championship Boxing Manager?*
5. What overall rating does Juris give the *Champions* compilation?
6. In what round was Jeff Fenech knocked out by Azumah Nelson?
7. What's your name?
8. What's your address?
9. What type of computer do you use?

Write your answers neatly on the back of an envelope - if you don't get questions 7, 8, and 9 right you've got serious problems!

Mail your entry to:
EA Champions Competition
c/o Phil Campbell
PO Box 23
Maclean NSW 2463

as soon as you can. With 25 prizes to win, the odds are in your favour!



Strikefleet

Come sailing the ocean blue with Kamikaze Andy as he embarks on a high-seas adventure. Can YOU make it to Fleet Commander?

Electronic Arts are certainly converting a lot of its older titles to Amiga format these past few months. First came *Starflight II* and *Hard Nova*, and now *StrikeFleet.*

For those who can remember, *StrikeFleet* was initially released on the C64 many moons ago following the success of *PHM Pegasus* (both were designed by the fledgling Lucasfilm Games division back then). Perhaps one of the reasons for its release was the flurry of interest in such wargames following the 1991 Gulf War.

Indeed, *StrikeFleet* on Amiga features updated scenarios with such scintillating titles as "E is for Embargo" (stop them Iraqi tankers!), "Dire Straits" (escort US and other tankers INTO the Gulf for refills), and the adrenaline pumping "Liberation Launch". This mission requires your forces to "Destroy all missile launchers based in Kuwait to pave the way for amphibious assault." All in all, there are 14 different missions for you to undertake.

So how does *StrikeFleet* stack up against other games of its genre, like *Wolfpack*? Although I haven't had a chance to get really far into the simulation, the number of available options for the StrikeFleet Commander is quite impressive. Even the first vessel under your command has a wide array of weaponry to deal with air, sea, and underwater threats. Another nice touch is being able to send off helicopters to scout surrounding areas.

You can play *StrikeFleet* in one of two modes: either individually, or in Campaign mode. The latter will require you to complete scenarios seven through to fourteen, building up your rank as you go along. Playing in Campaign mode can be tough, and you can't save your game! Don't worry though, as the successful completion of each campaign scenario provides the gamer with a special access code which can be used later.

You must also conduct a Campaign if you want to reach the highest possible rank in *StrikeFleet*, that of Fleet Commander. Understandably, you can't be promoted to such a title after only playing one individual scenario! Each mission has varying levels of difficulty, depending upon your skill and rank, the number of possible foes out there waiting for you, and another important factor: The Mission Clock.

Yes, you're only allowed a specific time limit to complete your mission objectives, otherwise your entire sojourn will be considered a failure (and you may be court martialled, like I was many many times. Maybe I shouldn't have kept shooting down my own helicopters...)

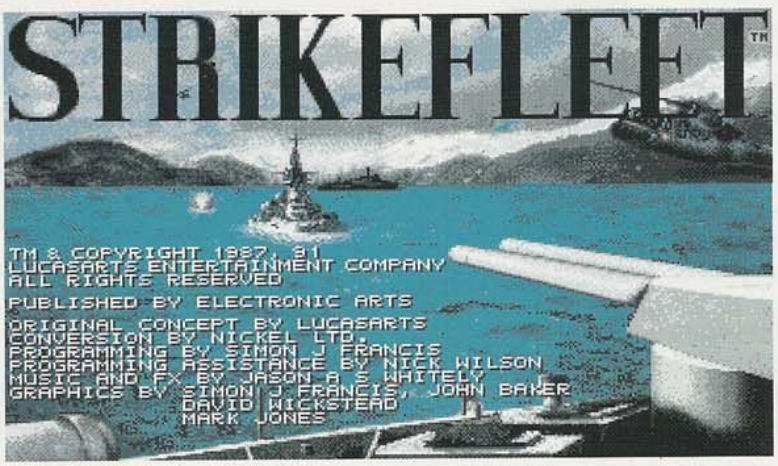
If I had to compare *StrikeFleet* with *Wolfpack* or *Harpoon*, I would slot EA's effort in between the two. While it doesn't have the strategic depth of *Harpoon*, *StrikeFleet*'s uncomplicated interface makes it much easier and faster to learn, eliminating some of the frustration gamers undergo when trying to keep track of every little thing on the screen.

Graphically, *StrikeFleet* is also better than *Harpoon*, with some nicely shaded stills and fairly smooth (though ultimately boring!) animation of seas and oceans. Being able to zoom in on the game's various maps was also a plus. But again, for games of this genre, graphics are secondary to gameplay, and *StrikeFleet* performs admirably in both.

StrikeFleet comes with an updated manual which includes mission briefings on the new scenarios, as well as lots of statistics on friendly and non-friendly ships, submarines, and those all deadly missiles. Copy protection is also based on the manual, so don't lose it (you'll probably want to keep it close by just to get to grips with identifying the blips and pixels that dot your monitor!).

There haven't been too many games of this kind appearing on the Amiga in recent months, and if you're a big fan then you should check out *StrikeFleet* at your local store. Beginners who want to experience the thrill of assuming control over a fleet of ships but found *Harpoon* too intimidating will discover that *StrikeFleet* is a good introduction to such games.

Distributed by Electronic Arts (075) 911 388. RRP Amiga - 59.95.



Ratings:

Graphics:	80%
Sound/Music:	65%
Gameplay:	80%
Overall:	80%

Knightmare

Join Kamikaze Andy in this nightmarish adventure as he explores an ancient fortress in search of sword, cup and crown.

"ENTER STRANGERS!" The four of us stopped dead in our tracks. Up until then, our exploration of the ancient fortress known as Dunshelm had been enveloped in complete silence. Before we could gather our senses (though some would argue we had none in undertaking such a quest), a strange halo of light surrounded the party. We found ourselves transported into an ante-chamber. It was occupied.

Treguard was his name, and to our surprise he seemed like a benevolent entity. We were told of our quest - to recover four magical items required to defeat the vile Lord Fear. The Dungeon Master (for that was his title) instructed us to search first for the Shield, then for the Sword, then for the Cup, and finally for the Crown.

Each of these four treasures would be hidden away in the depths of the castle, and each would be zealously guarded by many minions. Unfortunately, Treguard also told us that four special and immensely evil beasts had grown attached to their particular possession, and the party would have to overcome many odds before emerging triumphant.

And so, deposited on the outskirts of the fortress, our adventure begins ...

Based on a popular UK television series, *Knightmare* is Tony Crowther's follow-up to his hit 1990 effort *Captive*, and fans of the latter will find the *Knightmare* interface extremely similar. The left half of the screen displays the surrounding environment, the top right consists of party member icons, and the bottom right contains the movement and action icons.

Occasional text messages will unfold as a parchment when you stumble across a clue or a particular location. *Knightmare*'s graphics are by no means a nightmare (unlike some other recent games!), although the sombre tone adopted by the artist means that you will have to turn up the brightness level of your monitor a fair notch. Some items lying on the ground can easily be missed as they seem to blend in rather well with background colours.

Graphical depictions and detail of the *Knightmare* environment are excellent, and monsters range from cute bunnies to huge floating beets. As the game is set in a medieval time period, you can recognize some old friends like goblins, kobolds, and more.

Sound effects are also excellent and feature "surround sound". First found in *Captive*, *Knightmare*'s sound can help the player by indicating the direction of approaching foes. As is the case with most Amiga games today, the sounds themselves are digitized and extremely satisfying to the ear. The main musical theme plays during the introduction (which is also well produced) and after that, there isn't that much more to hear.

Perhaps Crowther could include little musical "snatches" at appropriate times during the game, for example, when coming into confrontation with monsters and such. This would help build up the suspense and increase the tension of the moment.

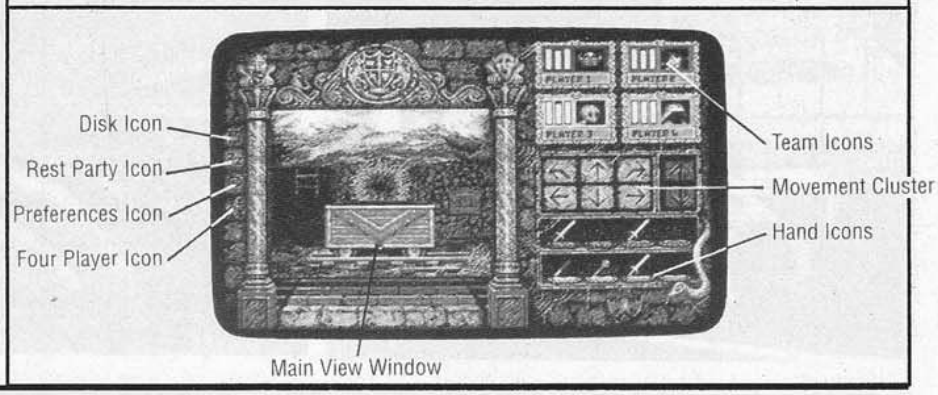
Many of the puzzles found in the game are of the *Captive* variety; locate several minor objects to bypass certain levels, detect secret passages (lots of these, I might add), and so forth. However, because of the excellent implementation of the game, *Knightmare* is not in danger of becoming repetitive. And, thankfully, there is a proper quest and a proper ending to the game, unlike *Captive*'s "keep on going for 60,000 levels!" challenge.

One of the more intriguing elements in *Knightmare* is the ability to decide whether your character is right or left handed. I don't think any other game has such a feature. Speaking of characters, make sure that you have a proper balance (two fighters, two magic users) as this quest can get quite tough at times. You might also want to change the names of the pre-created party. Somehow I just couldn't accept "Dickon" as a suitable name for a hero in Kaz Andy's mighty band of adventurers.

Overall, *Knightmare* is essentially "Captive II" but in a fantasy setting. This does not detract from the game in any way though, because *Knightmare* is an excellent RPG and a worthwhile buy for Amigans.

Distributed by Mindscape (02) 899 2277. RRP - Amiga $69.95.

Ratings:	
Graphics:	90%
Sound/Music:	85%
Gameplay:	90%
Overall:	90%



Burning Rubber

Car racing games come in many shapes and sizes. Phil Campbell checks out three of the latest offerings, and finds they're ALL hot stuff.

The need for speed. It pulses through every young man's blood. The wind in your hair, the roar of the engines, the thrill of the chase - exhilarating stuff! And here are three new games that dish it out by the bucketfull. They're all very different - but they're all very good.

Let's start with a quick look at *Microprose Formula One Grand Prix*. The trademark says it all - the name Microprose is synonymous with high quality simulations that incorporate every detail. And *Grand Prix* is no exception. The fact is, no other racing game has ever come this close to emulating the sights and sounds of the real *Grand Prix*. You can almost smell the burning rubber.

All 16 international Grand Prix tracks are accurately modelled and recreated in three dimensional detail. Your car handles exactly like a Formula One speedster, with adjustable gears, brakes, wings and tyres - the real challenge is to fine tune your car as well as your driving skills. Without the right combination, you haven't got a hope of making it to the top of the Championship ladder.

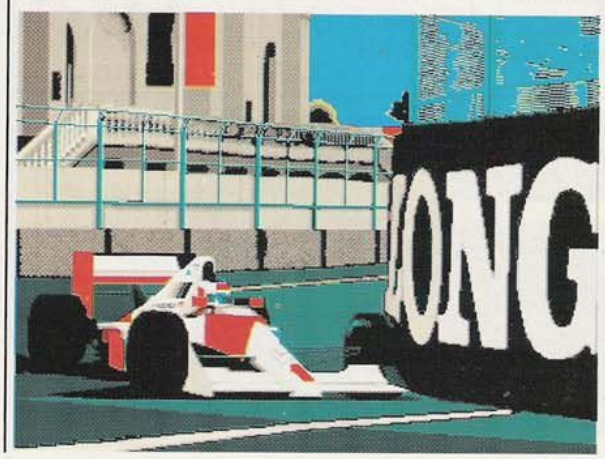
Watch those turns! You can lose precious time.

Graphics are superb. The combination of 3-D filled polygons with overlaid bitmaps works well - there's plenty of detail, including genuine scenery around the tracks. It's well worth a slow drive around the track, just to admire the yacht in Monaco Harbour, or the Dome in Mexico City. Adelaide, unfortunately, looks a little dull - but at least when I raced there it wasn't raining!

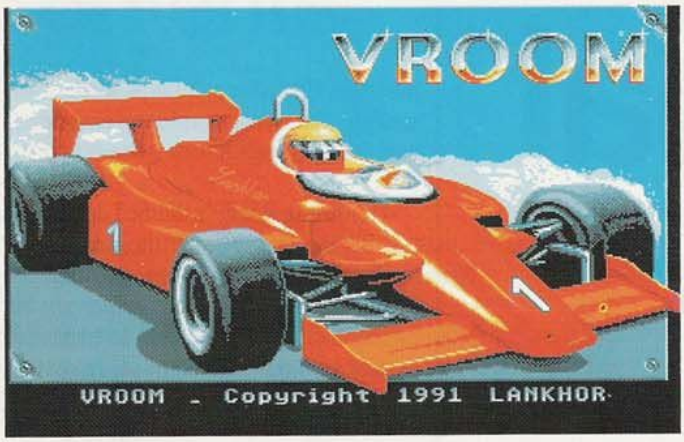
If *Microprose Formula One Grand Prix* is about anything, it's about capturing "the driving experience." And that's exactly what it does. When your car spins from the track, you'll spin in your chair. When you drive over a bump, you can almost feel it. When another car pushes past and crowds you into the wall, you'll wince.

Naturally enough, the "being there" feeling comes at some cost. Don't expect to master the game in moments - played at the top reality level, you'll need to practise hard. For mug drivers, though, there's plenty of help. You can switch in automatic gear changes, automatic braking, self-correcting spins, a very handy "ideal line" indicator that marks out the best path on the track ahead, and even "indestructible mode", which protects you from damage. Crash and smash to your heart's content!

Nice opening graphic! And the rest of Formula One Grand Prix is just as good



Ooops! I'm meant to be on the track



Vroom Title Screen

Here's what happens when you run into the back of other cars

In short, *Microprose Formula One Grand Prix* rates as the king of racing simulations. It's accurate, it's fast, it's realistic. Top stuff!

That doesn't mean, however, that there aren't other ways to get the racing adrenalin pumping, and two other new games are well worth a look.

Vroom!, from European software house Lankhor, is certainly not a high-flown simulation. Look at the program code and you won't find equations governing the air resistance of your spoilers, or the co-efficient of friction of your super slick tyres. What you see is what you get - a blisteringly fast racing game that certainly deserves its name. Vroom indeed!

The graphics are two dimensional and simple - no polygon mapping here. That's not to say there's not plenty to look at. Trackside scenery flies by at an alarming rate - trees, signposts, buildings.

And the detail is nice. In Japan, for example, you can spot a Shinto temple in the distant hills. But fair dinkum, you won't have time to look!

When the lights go green, it's time to put your foot to the floor. Push forward on your joystick, and the race is on. The controls are simple to master, and the car is fast and responsive. For sheer thrills and adrenalin rush, *Vroom*! leaves almost everything else for dead. It's more immediately appealing than *Microprose Grand Prix*, because it's faster and simpler to play - you'll already be hooked on *Vroom*! by the time you read the first chapter of the Microprose manual.

Sound effects deserve a special mention. Remember when you first bought your Amiga and they mentioned stereo sound effects? But how many games have really used them? *Vroom* is superb - if a car is passing on the left, you'll hear it on your left, if it's passing on the right you'll hear it on your right, and if it's right behind you the sound will be nicely centred. An excellent touch, and you'll find it gives the gameplay a real lift.

Lotus Turbo Esprit 2 is another top contender. It's a little different in style. Instead of racing other contenders, you're racing against the clock. Reaching certain checkpoints resets your timer so you can take on the next stage.This isn't as easy as it sounds. I thought I was driving particularly well, cruising around the curves and powering up the straights. Not good enough, - time up.

When you do finally complete the first track, it's off to another challenge. First you'll drive through the night, then a pea-soup fog, snow, desert, a motorway, a marsh, and a fierce storm. Exciting stuff.

Graphics are superb - smoother than *Vroom*!, with more finesse. The Lotus itself is nicely drawn, and roadside objects are well detailed.

So what's the bottom line? What we've got here are three very, very good car racing games. If you're the serious minded type, go for *Microprose Formula One Grand Prix*. There's no other choice. But if you're after some high speed thrills and spills, the choice between *Vroom* and *Lotus Turbo Esprit* is a hard one. Both offer two player head-to-head action on two machines with a cable link-up, both are fast, both are lots of fun. Speed freaks have never had it so good!

RATINGS:

Microprose Formula One Grand Prix

Graphics:	91%
Sound:	79%
Gameplay:	88%

Comments: Hard to master, plenty of depth, but still lots of fun.

Distributed by Questor (02) 662 7944. RRP $79.95.

Vroom!

Graphics:	82%
Sound:	94%
Gameplay:	89%

Comments: Easy to get into, highly addictive, and impossible to master - the name says it all!

Distributed by Pactronics (02) 748 4700. RRP $ 59.95.

Lotus Turbo Espirit 2

Graphics:	84%
Sound:	78%
Gameplay:	84%

Comments: A nice looking, nice playing game, but frustrating if you can't complete the course!

Distributed by Mindscape (02) 899 2277. RRP $69.95.

The Final Blow

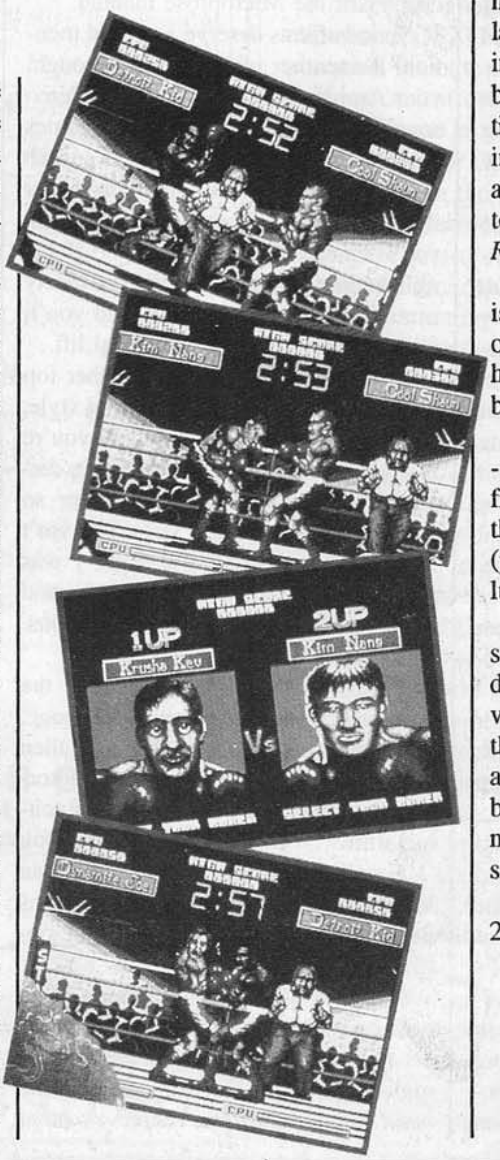
It's on with the boxing gloves for Gavin Parsons as he checks out the latest hard hitting fight sim The Final Blow.

Jeff Fenech and Mike Tyson have both had a bit of bad luck over the last few months. Jeff copped it in the ring, and Mike got his just deserts in the court-room. So the way is open for a new breed of champions. I volunteer! I'll take the prizemoney, anyway - and I'll even fight for it, as long as it's painless. Well, with a physique like mine I can always dream. And those dreams are almost real with Storm's new boxing-sim, *The Final Blow.*

As with real boxing, the aim of the game is straightforward - beat the hell out of everyone else to get the world championship title belt. You get to face up to ten pugilists competing for the title in a nine match round-robin, with points for knockouts, judges' decisions, and draws. The boxer with most points at the end of the tournament earns the belt.

I chose Kid Steve, a muscular black haired fellow who seemed eager to be the best. Lacing up our gloves, we were ready to fight. The referee starts the bout, the bell rings, and round one is under way. We dance, we weave, we punch and duck around the ring.

My first opponent is a leathery looking guy named Fernando Gomez - he's tough and so is the fight. With a number of moves at my finger tips, I box with the skill of Ali ... the jabs, swinging lefts and rights, upper cuts, ducks, long low punches. Each direct hit saps some of his energy - the sweat runs in torrents, muscles stiffen, and Gomez goes down for the count.



Humming *Rocky*'s theme I do a quick victory lap and wait for the next opponent. Digitised cries from my manager in the corner, and appreciative shouts from the crowd for well landed punches all add to the atmosphere of the game. The graphics are vivid and muscular, a number of the boxers having Tyson-like torsos.

I found success was achieved less by skill and choice of punches, and more by the ability to wiggle and jiggle my joystick and fire button - this is definitely not a game for wimpy joysticks! The lack of manoeuvrability reduces the feeling of control you have over your boxer, but there's still a great deal of satisfaction in seeing your opponents jaw crunching, his mouthguard flying backward, and finally, seeing him fall unconscious to the deck - all the ingredients of a good *Rocky* sequel!

A training option is available, organising a sparring bout with any of the other opponents - a good way to identify his particular strengths and weaknesses before the tournament begins.

I like the two player option most of all - you can take on the family member or friend of your choice, bash them around the head and not get arrested for it (perhaps a new method of conflict resolution for families).

Final Blow is one of the better boxing sims I have seen for the Amiga - my only disappointment was with the lack of variety in gameplay - every match starts the same, and plays in a similar way. I also found that it was a bit too easy to become numero uno - overall entertainment value and lifespan may be a little short. Or maybe I'm just a natural?

Distributed by Mindscape (02) 899 2277. RRP Amiga - $69.95.

Ratings :	
Graphics	83 %
Sound	77 %
Gameplay	55 %
Overall:	63 %

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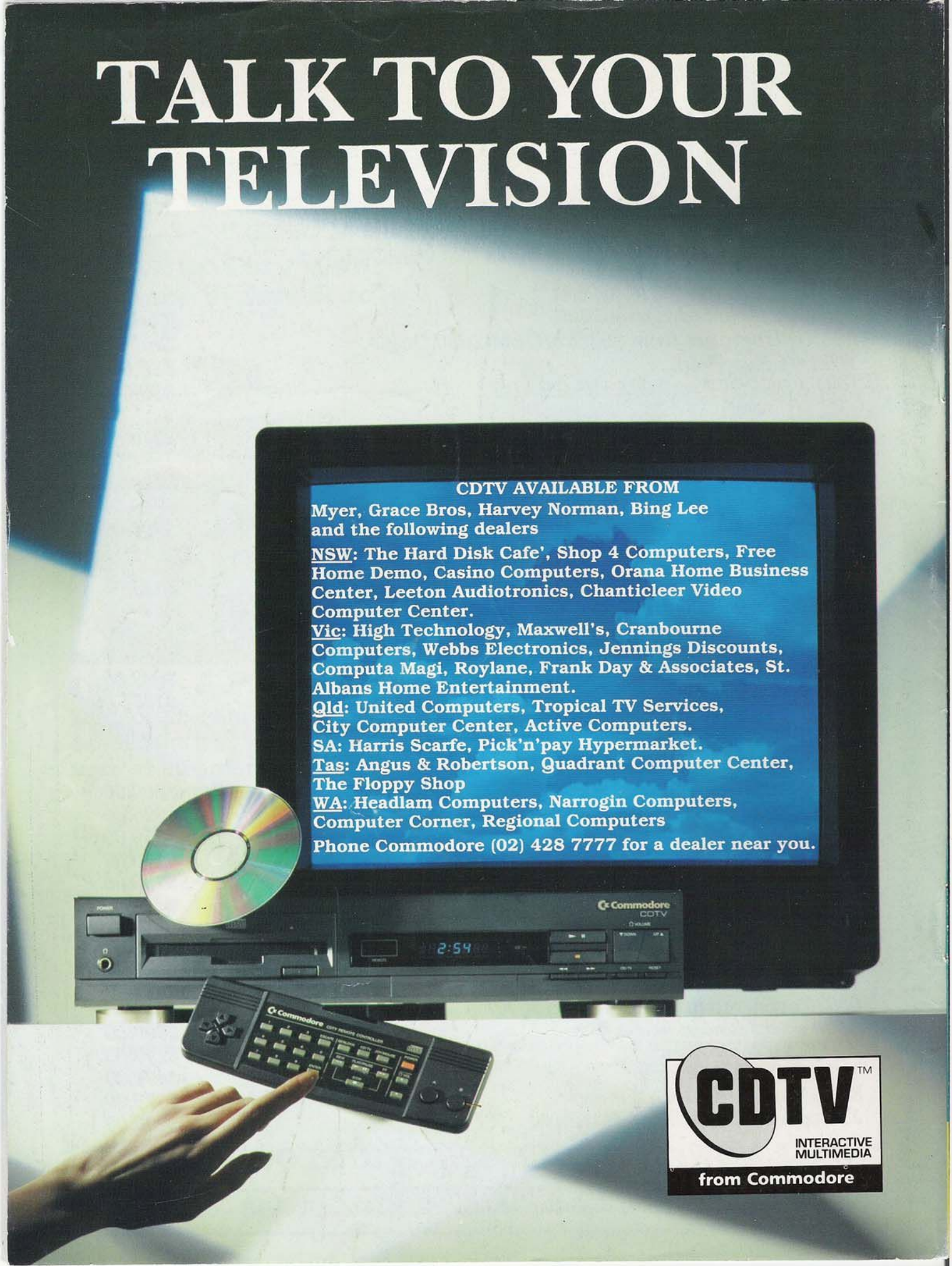
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